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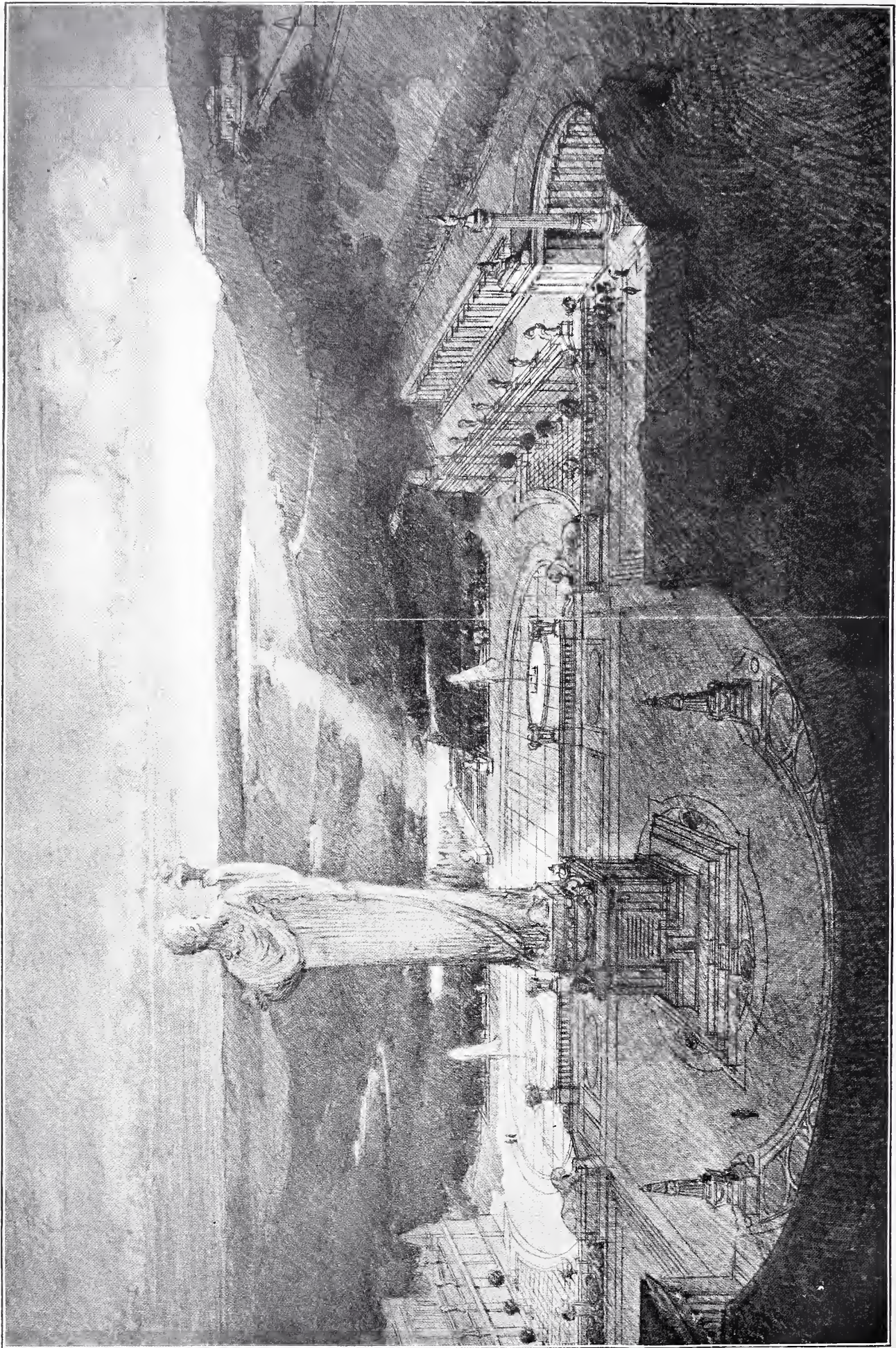






THE ARCHITECTURAL  
REVIEW, JULY,  
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NO. 116.





THE ATHENÆUM, SHOWING VISTA TO THE SEA,



# The City Beautiful—San Francisco

## Rebuilt.—I.

SAN FRANCISCO having grown enormously in commerce and population during the past decade—owing to her trade with the Orient, the development of her natural resources, and her general pre-eminence as the chief port of the Pacific—an improvement in her architectural and topographical embellishment was generally demanded.

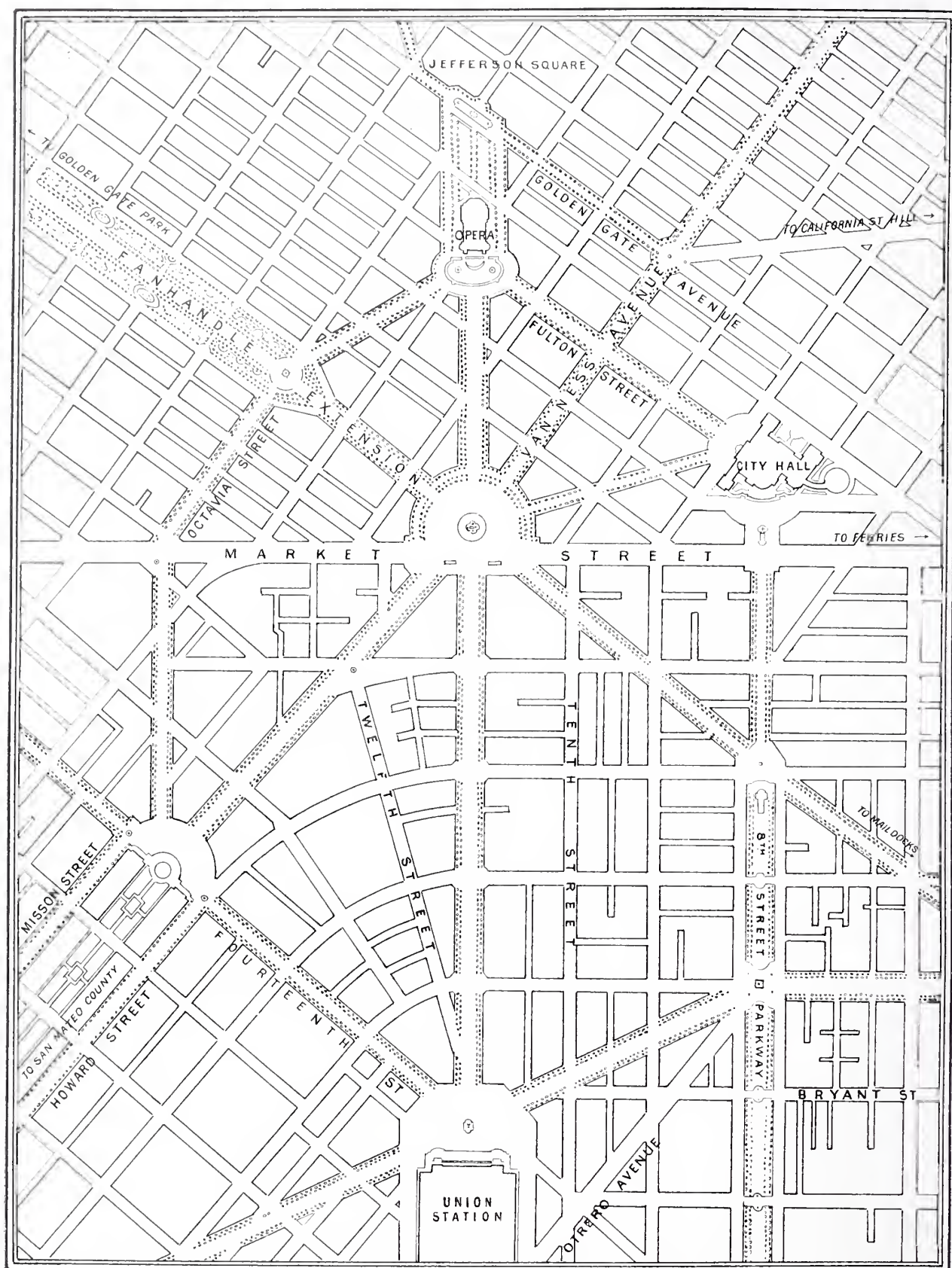
Under the leadership of James D. Phelan and many prominent and wealthy citizens, the Association for the Improvement and Adornment of San Francisco was formed on January 15, 1904. Realising the artistic possibilities of a city of hills so favoured by situation and climate as San Francisco, the Association announced as its main objects—the beautifying of the streets, public buildings, parks, and places, the study of the best methods for instituting municipal improvements, the stimulation of civic pride in private property, the encouragement of quasi-public enterprises, and the advancement of all that might help to make this the most beautiful and modern of all cities. The services of Daniel H. Burnham were secured—that eminent architect, under whose direction plans had been prepared for Washington, Cleveland, Chicago, and Manila, generously offering them gratuitously. A pleasant bungalow was built for him by his associate, Willis Polk, upon a spur of Twin Peaks, overlooking the entire panorama of the city, and here, in conjunction with the most talented artists and landscape gardeners, the noble plans were prepared. In September 1905 they were officially accepted by the mayor of the municipality. It is according to these plans that the new city is now to arise out of the ruins of the old without being extended over a long period of time in the usual manner of growth.

The most radical changes contemplated were in the nature of new streets and boulevards. The early San Francisco of the Spanish possession and “the days of ’49” had been laid out on a perfectly rectangular plan by surveyors who paid little attention to grades or æsthetic considerations. The checker-board pattern was intersected

diagonally by Market Street, the main thoroughfare, into which all other streets emptied like tributaries into a river. According to Mr. Burnham:—

“A study of the cities of the Old World develops the fact that the finest examples—Paris, Berlin, Vienna, Moscow, and London—consist of a number of concentric rings separated by boulevards. The smallest of these rings, enclosing the civic centre—that portion of the city which plays the most important part in civic life—is located at or near the geographical centre. From this inner-circuit boulevard run diagonal arteries to every section of the city and far into the surrounding country. Intersecting in the first place the periphery, or outer wall, they traverse in succession the various circuit boulevards, which represent in themselves the successive stages of the city’s growth, and finally reach the centre or group of centres which, in a measure, they traverse to connect with one another and form continuous arteries from one side of the city to the other. It is on this study that the proposed system of circulation for a larger and greater San Francisco is based. Experience shows that the radial arteries should be many, and that the inner circuit from which they start should be small in radius. This circuit has been named the perimeter of distribution. It surrounds the centre which the radial arteries traverse (which may be termed the centre of circulation), and in conjunction with this it forms the civic centre.”

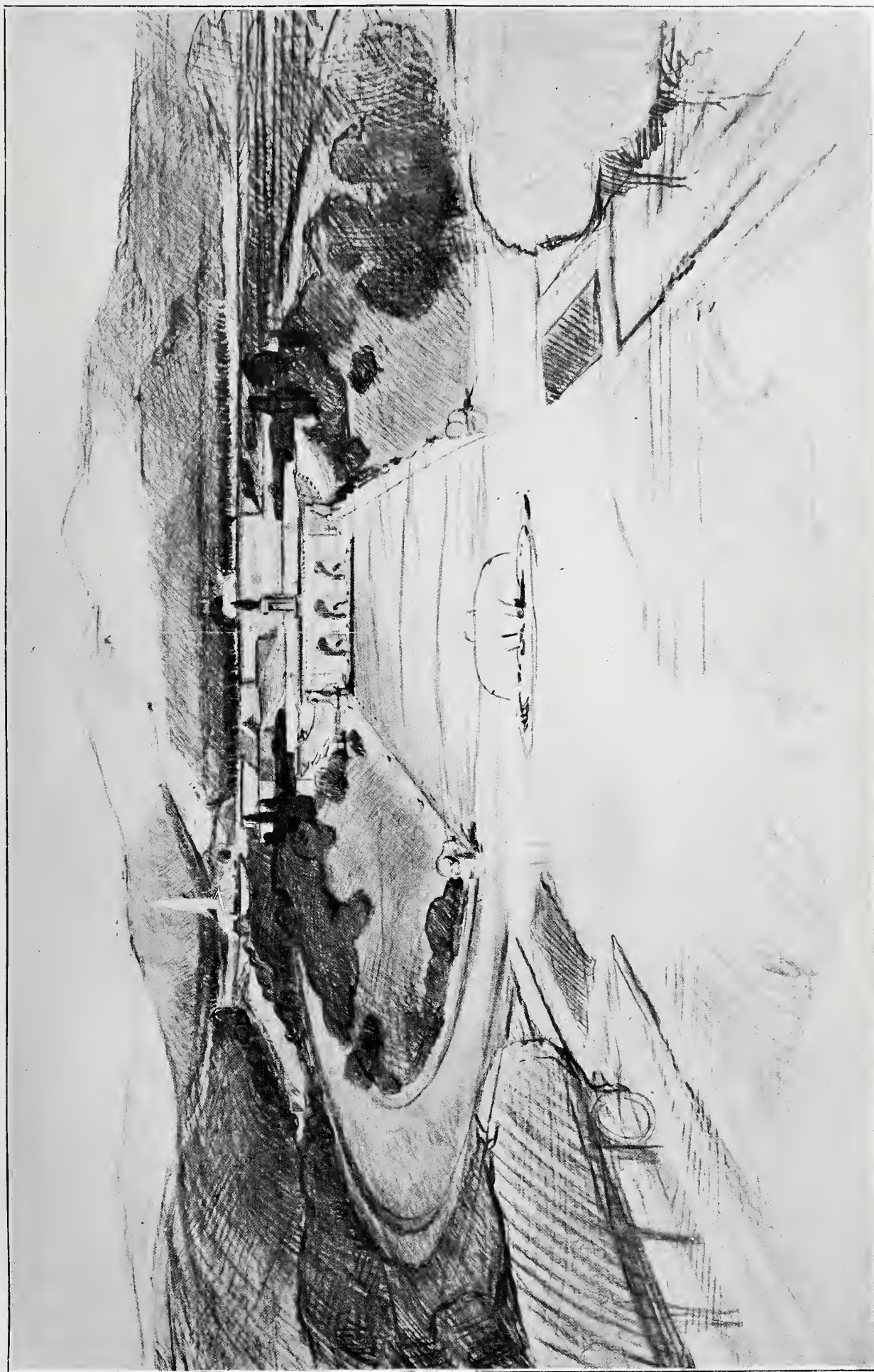
In San Francisco, according to this general theory, it was foreseen that the civic centre would develop about the core of the city in the form of a number of sub-centres at the intersection of new radial arteries with the perimeter of distribution. At each of these intersections there was to be a public place. The peculiar position of San Francisco upon the extremity of a peninsula bounded by the bay, the Golden Gate Straits, and the Pacific Ocean, disclosed a water-front for the periphery on three sides, thus calling for special considerations not necessitated in the planning of the European cities mentioned. The eastern



PLAN OF THE PROPOSED NEW CENTRE FOR THE CITY.

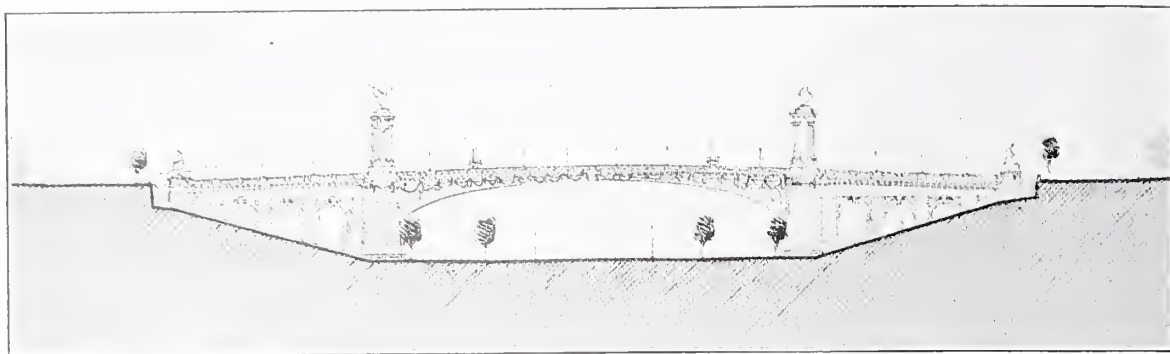
In view of the destruction of the City Hall the position of the new building would probably be reconsidered in connection with this centre





APPROACH TO TWIN PEAKS AS SEEN FROM MARKET STREET.





A SOLUTION OF THE CROSS-TRAFFIC DIFFICULTY. SECTION AT FILLMORE STREET.

shore, fronting upon the bay, was the commercial gate to the metropolis, which received all its supplies from the surrounding country by water. Its western section once built up, the city could expand only towards the south, so the question of free communication with this southern country of suburbs called for a scientific solution full of provision for the future. The existing financial centre was at California and Sansome Streets; the manufacturing district lay south of Market Street. The new civic centre was to be placed where Market Street intersected Van Ness Avenue, a fine wide residential street where so heroic an attempt was made to arrest the terrible conflagration. This centre was to communicate with the others by means of the present diagonal main thoroughfare, and by the extension of other streets. It provided for edifices devoted to administration, education, amusement, and shopping of the finer order.

The architects realised that the arrangement of the innermost and outermost boulevards was quite practicable for San Francisco. But the intermediary circuit boulevards of concentric plan were obstructed by hills in various parts of the city. The plans, therefore, provided for an ingenious series of contour roads, circumscribing the hills and connected with one another on the level ground by arteries, thus completing an irregular chain as closely concentric to the inner circle as the land would permit. Of particular interest to all concerned with the modern and scientific

planning and readjustment of cities is Mr. Burnham's study of the constituent parts of the model metropolis of California:—

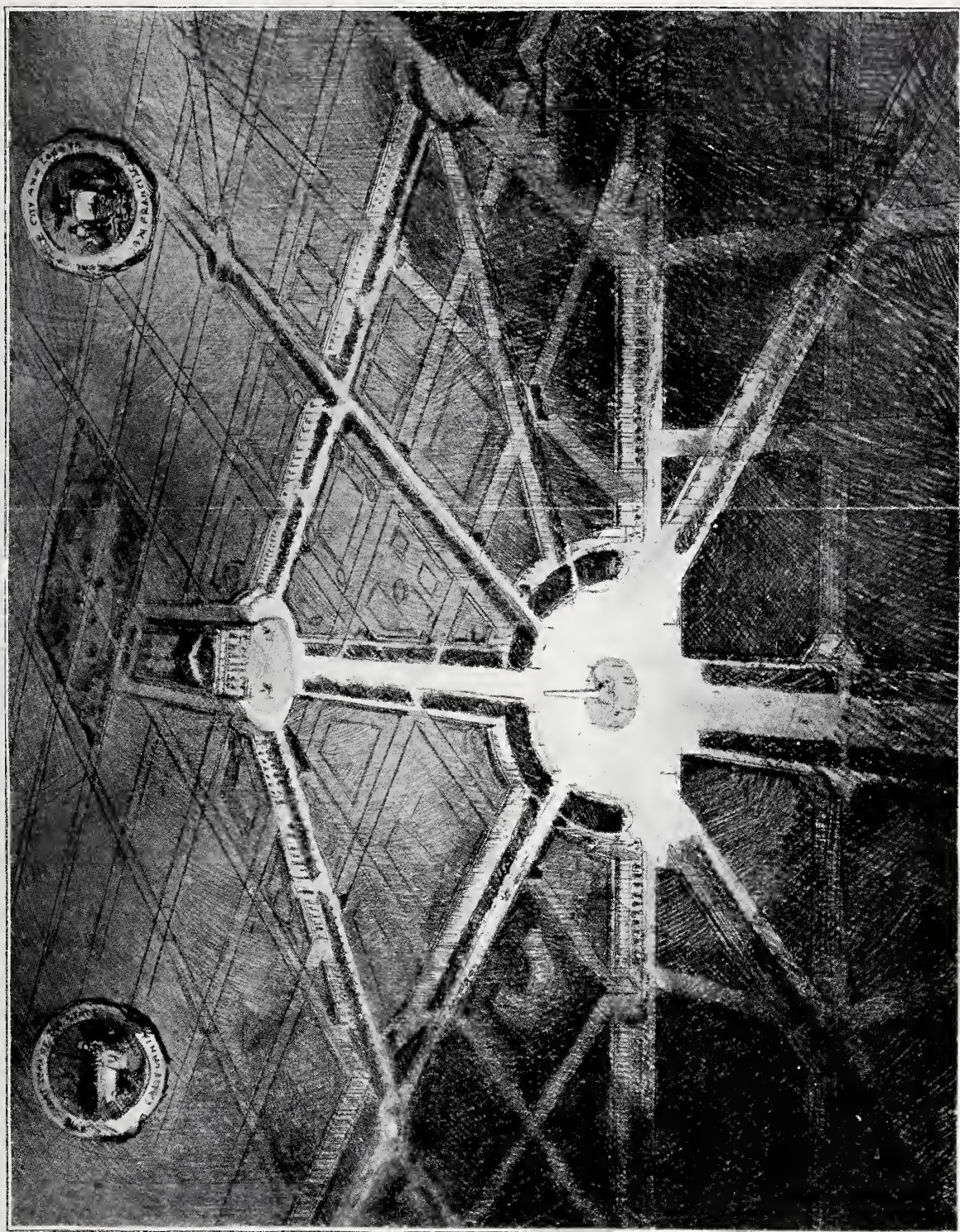
“The city may be divided into the following elements: 1st, Administrative and Educational; 2nd, Economical; 3rd, Residential. The first is the real being of the city proper; all else should contribute to its honour and maintenance. In its national character it guarantees the city's relation to the country and in its civic character to the citizens. This centre comprises, firstly, those structures devoted to the interests of matters administrative, of national, municipal, judicial, and educational character, grouped in proper relation to one another:—City Hall, Court of Justice, Custom House, Appraiser's Building, State Building, United States Government Building, and Post Office. Secondly, those structures, public or private, of monumental character and of great civic interest relating to matters literary, musical, æsthetic, expository, professional, or religious:—Library, Opera House, Concert Hall, Municipal Theatre, Academy of Art, Technical and Industrial School, Museum of Art, Museum of Natural History, Academy of Music, Exhibition Hall, and Assembly Hall.

“These buildings, composed in æsthetic and economic relation, should face on the avenue forming the perimeter of distribution, and on the radial arteries within, and in particular on the public places formed by their intersection, and



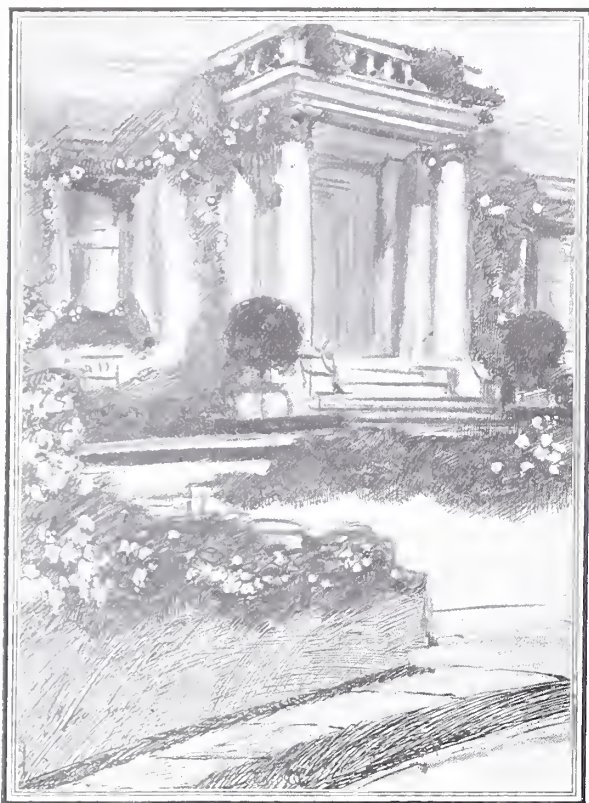
A SOLUTION OF THE CROSS-TRAFFIC DIFFICULTY. SECTION AT STEINER STREET.





VIEW OF THE CIVIC CENTRE, LOOKING FROM THE SOUTH SIDE OF MARKET STREET.





SUGGESTED TREATMENT FOR EXISTING  
DOMESTIC STREET FRONTAGES.

should have on all sides extensive settings, contributing to public rest and recreation and adapted to celebrations, fêtes, etc. Both groups, relating directly to the spacious *place*, the heart of the city's circulation, and removed from the direct flow and press of business, will gain in repose and strengthen the public sense of the dignity and responsibility of citizenship. A grand vestibule to the city should be placed on the chief radial line from this *place*. This will be the Union Railway Station, common to all lines." The accompanying plan and perspective show the general disposition of the civic centre.

We thus see how these vital features of the city were to be grouped according to their natural order and relation. Of the second and economical element of the city Mr. Burnham says:—

"It involves two considerations—distribution and finance. The first includes international and internal commerce, and comprises:—Wholesale Trade, Retail Trade, Manufactures, Dockage and Wharves and the Railway Dépôt.

"The freight dépôts, docks, and wharves group naturally on the water-front. They should be planned for indefinite expansion and connected with a complete system of warehouses—served on the one hand by railroad tracks or canals and on the other by broad roadways. The warehouse system should be so schemed as to distribute the

raw material directly to the manufacturing quarter, and other products as directly as possible to the wholesale trade districts. These in their turn must distribute easily to the retail quarter. The retail quarter follows, in general, in its growth, the residential districts which it serves, limited by the steeper grades of the contours. Thus the whole working city is governed in its location and growth by the two conditions of a maritime city—the water-front and the available level ground."

An immense extension of docks and wharves was contemplated to accommodate the constantly increasing shipping of San Francisco. The outer boulevard, without interfering with the wharfage, followed the sea-wall. Here piers for public recreation, a yacht harbour, and bathing-places (enclosed and open-air) were planned. The population from the poorer quarters would seek this outer boulevard to find refreshment in the pure sea-breezes. Transit, which in San Francisco had already attained so high a degree of perfection, was also considered in regard to the necessities of growth. As rapid underground transit best solves the problem of moving large crowds from one centre to another in a manner no surface traction can accomplish, and as it was desired to preserve the freedom and the beauty of the boulevards, the idea of providing the new main diagonal arteries with an underground service of cars traversing the circular centre by means of a loop was generally accepted. At least two subterranean lines were to cross each other at right angles to distant parts of the city.

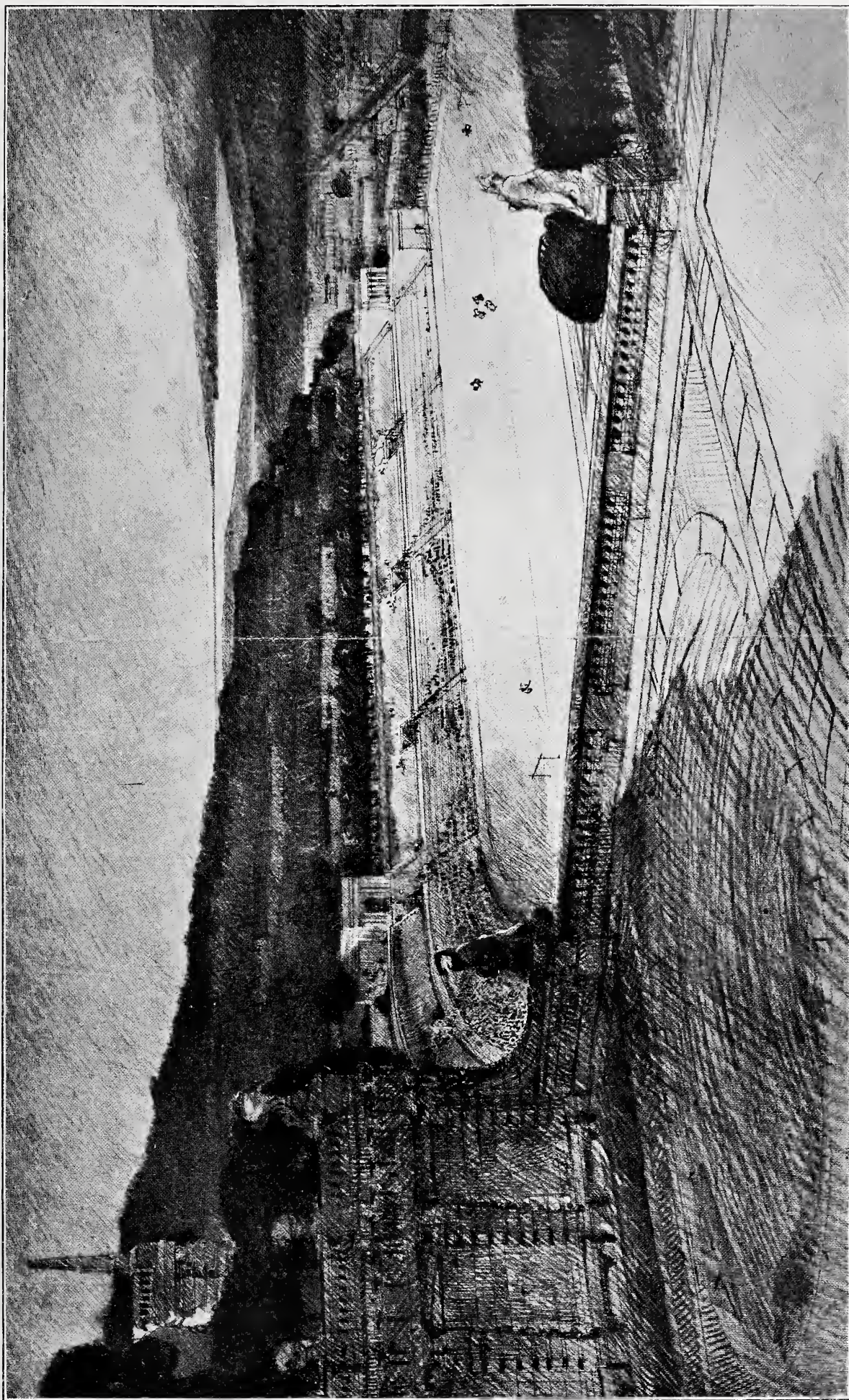
"The wholesale quarter represents," says the official architect in his report, "natural products and manufactures. The former should be given precedence in accessibility to the retail dealers and markets for the daily distribution of perishable goods. When necessary the retail quarter should be relieved from congestion by arcades and should have broad sidewalks. The finance centre comprises banks, exchanges, insurance buildings, and general office structures. It is most naturally situated between the wholesale and retail quarters, should be directly accessible to these from at least one great artery of the city and also from the administrative centre. The ideal would be, perhaps, a financial forum, which, although surrounded and served by working roadways, should exclude vehicles from its centre. In the form of a court or series of courts it should be fronted by the most important and frequented financial concerns; the Stock Exchange placed as the focal point on the main axis."

HERMAN SCHEFFAUER,

*Vice-President of the San Francisco Architectural Club.*

(To be continued.)





THE AMPHITHEATRE.



# The Milan Exhibition.—I.

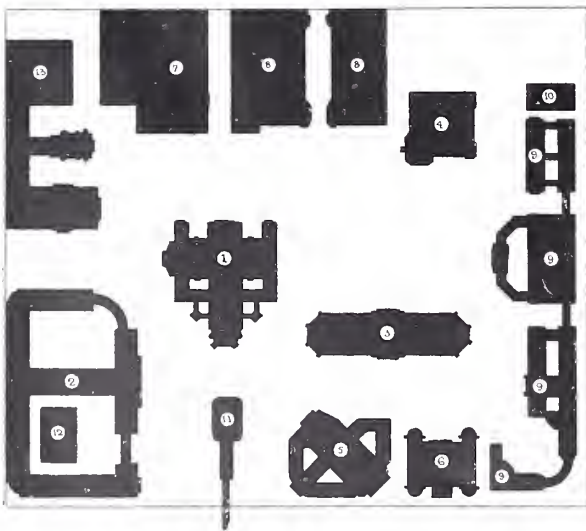
## The Buildings.

AFTER repeated postponements, which would have been unnecessary if the work had been begun in due time—the scheme was promulgated as far back as 1901, and the plans selected in April 1903—the International Exhibition at Milan has at length opened its gates to the public. It is almost unnecessary to say that the buildings are not even now all of them quite completed, but while the finishing touches have still to be given the ultimate appearance of the buildings will not greatly differ from the official photographs which have already been published.

The authorities seem to have exercised the utmost care in the arrangement of the areas occupied, and every portion of the work, even to the design of the official seal and of the “manifesto” or poster, was put up for competition. It would seem, too, that the committee was very hard to please in the latter case, for the poster with which the walls of every town in Italy, from the Alps to Calabria, are at the present moment placarded, is the result of three separate competitions, the first two of which did not produce a design to satisfy them. In the competition for laying out the grounds more success was met with, as either the premium of £200 or the glory

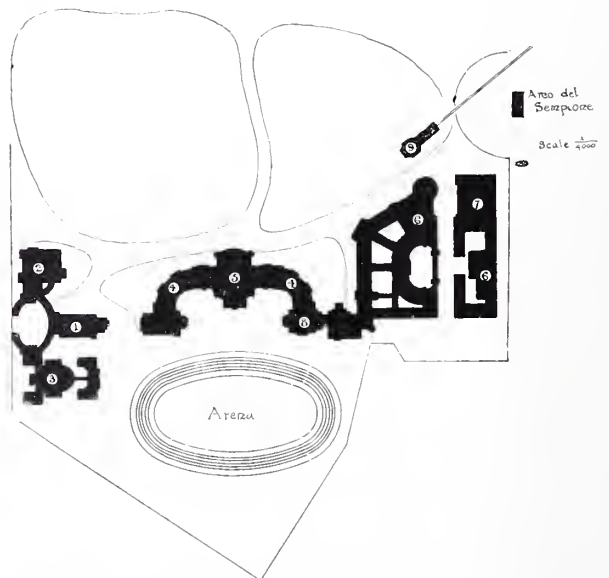
proper to the thing itself—perhaps both—produced eighteen designs of considerable merit. Two designs were bracketed first, and as a result the work was divided between the successful firms. To Sig. Sebastiano Locati, who was for some time Professor of Architecture at Pavia University, and his colleague, Sig. Orsino Bonghi, of the Ufficio Tecnico of Milan, was allotted the task of laying out the Parco Reale. The work in the Piazza d'Armi fell to the portion of Sig. Carlo Bianchi, Professor of Ornamental Design at the Istituto Tecnico Superiore at Milan; Sig. Francesco Magnani, Professor of Ornamental Design at the Politecnico at Milan and editor of *l'Edilizia Moderna*; and to Sig. Mario Rondoni, junior professor of the same subject at the Politecnico.

The prevailing idea in the general arrangement of the block plan was to place all the buildings dealing with art in the Parco Reale, while the industrial work should be disposed in the Piazza d'Armi; but, as a matter of fact, it soon became obvious that the portion of the park which had been conceded was quite insufficient for the requirements, and the French and Austrian art sections have had to go over to the Piazza.



BUILDINGS ON THE PIAZZA D'ARMI.

- |                           |                       |
|---------------------------|-----------------------|
| 1. Marine Transport.      | 8. Railway Transport. |
| 2. Machinery Hall.        | 9. Agriculture.       |
| 3. French Decorative Art. | 10. Roadmaking.       |
| 4. Hygiene.               | 11. Railway Station.  |
| 5. Motor Cars.            | 12. Silk Industry.    |
| 6. Carriage Builders.     | 13. Belgian Section.  |
| 7. Austrian Section.      |                       |



BUILDINGS IN THE PARCO REALE.

- |                                    |                                  |
|------------------------------------|----------------------------------|
| 1. Reproduction of Simplon Tunnel. | 6. Decorative Art.               |
| 2. Retrospective Transport.        | 7. Prevention of Accidents.      |
| 3. Aquarium.                       | 8. Architecture.                 |
| 4. Fine Arts.                      | 9. Station for Electric Railway. |
| 5. Festival Hall.                  |                                  |



The whole scheme is monumental, more by reason of fine planning than from particular artistic merit, and there are places where the critic is obliged to be content with the explanation that exhibition buildings are structures of a peculiar and ephemeral kind, and therefore the architect need not take himself altogether seriously.

The principal entrance is situated in the park, where there is a large elliptical court of honour about 180 ft. long by 140 ft., of irregular form and most effective. There is a colonnade round it, and opposite the gates, on the minor axis, rises the Galleria del Sempione, containing the sections of the Simplon Tunnel. Right and left, on the major axis, lie the Aquarium and the Retrospective Transport buildings. All these structures harmonise with the design of the court, and though instead of two ovoid tunnel-mouths the conventional mind asks for the more usual triumphal-arch form of a central opening flanked by two smaller ones, the obvious *raison d'être* of the arrangement disarms criticism to a large extent. But it does not prevent us from noticing (and unhappily this applies to most of the buildings) that in the detail there is sometimes a tendency to introduce incongruous and unlovely ornaments mixed with a reprehensible degeneration into the lowest depths of "l'Art Nouveau." It is not denied that railway buffers have their uses when properly applied to rolling stock, but they are not things of beauty, and are out of place on the *voussoirs* of an arch. They resemble nothing so much as colossal shirt-studs embedded in the plaster. Nor is the detail of the courtyard to be greatly admired with its square and slender coupled shafts divided into square blocks and surmounted by debased Ionic capitals from which the abaci are wanting.

The allegorical group between the tunnels representing "Mining" is the work of the Italian sculptor Sig. Enrico Butti. The four figures of Victory on the pinnacles, waiting to crown the visitors, and the colossal Mercury on the highest peak of all, inviting the crowd to come and see the wonderful tunnel placed under his especial care by a discerning committee, have been modelled by Sig. Brivio.

There is much interest of a different nature involved in the building devoted to the Aquarium, for it is to form a permanent record of the Exhibition long after the other pavilions have passed away and their very sites shall be forgotten. It is to "form an interesting field for the study of all materials and methods used in construction"—we quote from the *Monitore Tecnico di Milano*. It is pleasing, therefore, to notice that an English firm, Messrs. Mellows, have secured the contract for the glass roofing. This, by the way, although

it is the usual form used at home, seems to be quite a novelty in Milan, as nearly all the technical papers give elaborate sectional drawings of the iron bars and expatiate upon its wonderful cleverness. The design of the building has evidently received more care than was bestowed on that for the Galleria del Sempione, perhaps on account of its permanent nature, and displays an artistic feeling of a high order. The ornamentation is symbolic, and not overdone; and there is nothing obtrusive to compete with the railway buffers next door. Every kind of sea monster and marine growth figures on the façades, but the decoration is kept well under control.

The internal arrangements of the Aquarium are of an up-to-date character. There are three large underground storage tanks for sea water, the largest having a capacity of 85 cubic metres (about 350,000 gallons), and the other two a capacity of 43 cubic metres each (about 175,000 gallons). These tanks are built of reinforced concrete, and the vault above them forming the floor of the Aquarium is of the same material. All three tanks are lined with plate glass. The show tanks are arranged round an oval gallery, and the water supply from the reservoirs is kept in circulation throughout the whole series by means of pumps. In order that the water shall remain clean during its passage through so many different tanks each compartment has an elaborate filter bed underneath, through which the water is forced before entering the next chamber. The temperature is, of course, under control, and in order to guard as far as possible against local variations the show tanks have hollow walls of plate glass. The whole building is top-lighted.

The statuary—and an exhibition building is as nothing without statuary—is from the chisel of Sig. Labò, one of the most distinguished among the younger generation of Italian sculptors. The colossal Neptune over the entrance is something like 15 ft. high, and modelled with plenty of force, though we are ignorant as to why he should be given a cast of countenance so bestial and repulsive. It is clear that the authorities in Milan have known how to get the best work from the best men so far as sculpture is concerned, but in Italy a sculptor's work is more likely to receive the appreciation due to its merits, and where the standard of the demand is high the standard of the supply will almost invariably attain to the required excellence.

And from sculptured ornaments it is natural to turn to the buildings devoted to sculpture pure and simple and to painting. Architecture was to have been housed under the same roof, but was crowded out by the number of exhibits sent by followers of the sister arts. It has now a separate





FESTIVAL HALL.



ENTRANCE TO FINE ARTS SECTION.



pavilion, forming a portion of the irregular line of buildings grouped, as far as possible, so as to harmonise with the old grass-seated Amphitheatre built when Napoleon ruled in Milan and crowned himself King of Italy; this last intended, no doubt, for classic displays, but now affording a convenient abiding place for Buffalo Bill and others of that ilk.

In the centre of the group stands the Festival Hall for concerts and similar gatherings, a circular building covered by a flat dome and flanked by imposing but overdone towers with sloping sides, suggesting the solidity of granite rather than the flimsiness of bamboo and plaster. But the all-powerful committee decreed that the style should be "Barocco"; and who does not know what that may mean in able hands? On either side of the hall are ranged the Fine Art Galleries, built in sweeping curves, as if to embrace the Amphitheatre in their arms. Whether the view be from the "Pulvinare"—the great entrance to the Amphitheatre—or from the park grounds, the grouping is equally good. Internally the adoption of curved galleries for art exhibits produces fine effects, and is an improvement upon the more usual rectangular form, in which the eye is bewildered by seeing too much at once. The galleries are decorated internally in flat masses of secondary colours suitable to their purpose. The interior of the Concert Hall cannot be so quickly passed over. By order of the committee presumably, it is even more "Barocco" than the outside would lead one to suppose. Pale sage-green walls yield unwillingly to a pale blue dome dying into white at the zenith. The columns supporting the dome and arcades are shaped into realistic tree-trunks (of plaster); and when they have, at the level of the balcony tier, submitted to being crowned by much-begilt capitals remotely resembling Ionic (only the volutes are broken-backed and the abaci again are missing), they break off into branches with white leaves and golden flowers, running in all directions in indescribable confusion all over the roof.

The fiat of the committee has been obeyed, and the style is "Barocco."

It was fortunately decreed by the same august body that the style of the art galleries should be "suggestive of the Renaissance," and the entrance front towards the Galleria del Sempione is, while perhaps not more than suggestive of the Renaissance, effective with its circular opening, statuary, and inevitable red Venetian masts. At Milan their labour is but vain who build without Venetian masts fresh from San Marco and laurel wreaths redolent of Paris and the Place de la Concorde.

We were told that the building for Architecture was designed in a modern Greek style. The text-

books we fed upon in our pupil days dished us up many styles from many countries, but this one style was missing from the menu. It is no doubt meant to be a modern life infused into classic forms; but the very words "classic" and "modern" are the undoing of each other. The use in this building of an exclusively Greek composition tricked out in the finery of the modern style—or as it is called in Italy, the *style liberti*—is unfortunate to English eyes. But each nation must be allowed to enjoy its own taste. The official journal of the Exhibition dilates on it with enthusiasm, and after a long dissertation on the beauties of the Greek style in general, says, "And so also our own pavilion of Architecture is in the Greek style. Was it tradition, or sentiment, or recollection, that impelled us to it?" And the conclusion reached is that it was a little of all three.

The building for Italian Decorative Art is chiefly singular on account of its plan. It is true that it was more or less governed by the fact that no erection was allowed to infringe upon the limits of the permanent main roads in the park, but Italian architects are less accustomed to planning buildings for irregular sites, and endeavour as far as possible to obtain rectangular forms. The result is that the covered portions are more or less regular, and the open courts are cut up into the oddest of shapes, which, owing to their ample dimensions, scarcely ever fail to produce fine perspectives. The same principle of curved galleries already noticed in the Fine Arts section prevails here, and is treated in much the same way. It is a pity that the splendid peristyle enclosing the entrance court with its effective pylons and dashes of bright colour does not face the open park, whence the effect would be greatly enhanced. Close as it is to the smaller building for Decorative Art and Accident Prevention (what the connection between the two exhibits may be is not easily guessed), the full force of the design is missed.

In the Piazza d'Armi we are immediately conscious of a different hand at work upon the plan, but the difference of ideals is more apparent than real. The park is a public garden already laid out, and compelling the architect to obey its restrictions. The Piazza d'Armi, on the other hand, is an enormous rectangular gravelled square, used (as its name implies) for military exercises. There is nothing to spoil, and the structures may be placed according as fancy and convenience dictate.

The central position is occupied by the Marine Transport building, wherein are to be seen models of ships ancient and modern, peaceful and warlike, and all things akin to the seaman's calling, from turret guns to fishing tackle. The pavilion covers an area of 10,000 square yards, and consists

mainly of two long halls crossing at right angles, incrustated with little galleries and projections, which seem to make the elevation disagree with the plan. That this sometimes happens in drawings we most of us know, but to obtain this effect in an actual building must be rare. Symbolism runs even greater riot here than in the Galleria del Sempione, but it is a very striking symbolism. By some subtle touch of the designer the building is salted with the sea. Not only does the lighthouse inevitably proclaim its object, but the bold curves on the base walls have the smack of a ship's lines, and the windows over the smaller entrances come straight from the galleried sterns of Nelson's days. Yet none of it is forced. There is too much playfulness, perhaps, in the masts and yardarms with pulleys and cordage, but in the main the design is simple and convincing. They know in Milan how to treat a big arch-span with little adornment and yet make it effective. There is a fine example of this in the central façade towards the Austrian pavilion. The sculptured groups on either side of the entrance (facing the railway station) are by Sig. Grossoni, and are among the best in the Exhibition. They represent Neptune riding on a huge shell and drawn through the billows by sea horses which melt artistically into waves and defy description. They resemble Mr. Walter Crane's "Sea Horses" in spirit and design.



PRINCIPAL FAÇADE, MARINE TRANSPORT BUILDING.



"MINING."

GROUP BY SIGNOR ENRICO BUTTI.

But the most striking façade in the whole Exhibition is that of the Galleria del Lavoro, or machinery hall. In the first place the building is the largest and occupies an area of about 24,000 square yards, with a central gallery nearly 500 ft. long and 100 ft. wide, filled with moving machinery, where

All day long the iron wheels are turning, and where those who are interested may see raw material passing through all the various processes of manufacture till the finished article is produced.

The effective employment of wide arch-spans is particularly noticeable here. There are three of them—the central one, over-ridden by the graceful gilt dome, being larger and enclosing a vast window with radiating bars like the ribs of a fan, in the centre of which sits (as yet she does not sit there, and the vacant space awaits her coming) an allegorical figure no doubt emblematic of "Work." On either jamb of the entrance there are sculptured groups in mezzo-rilievo by Sig. Carminati illustrative of the "Glory of Work," but the number of workmen represented as toiling for their daily wage produces rather a confusing result. There is an appealing gracefulness of line shown here too, and the spaces between arch and gable are refreshingly devoid of decoration; for, although it can scarcely be said that any of the designs are overcharged, the ornamentation in a long series of buildings such as this exhibition has produced seems to have a cumulative effect upon the eye, and the few frankly blank wall spaces are as welcome as an oasis in





ENTRANCE TO THE GALLERIA DEL SEMPIONE, SEEN FROM THE OUTSIDE COURT.



ENTRANCE TO PAVILION FOR ITALIAN DECORATIVE ART.



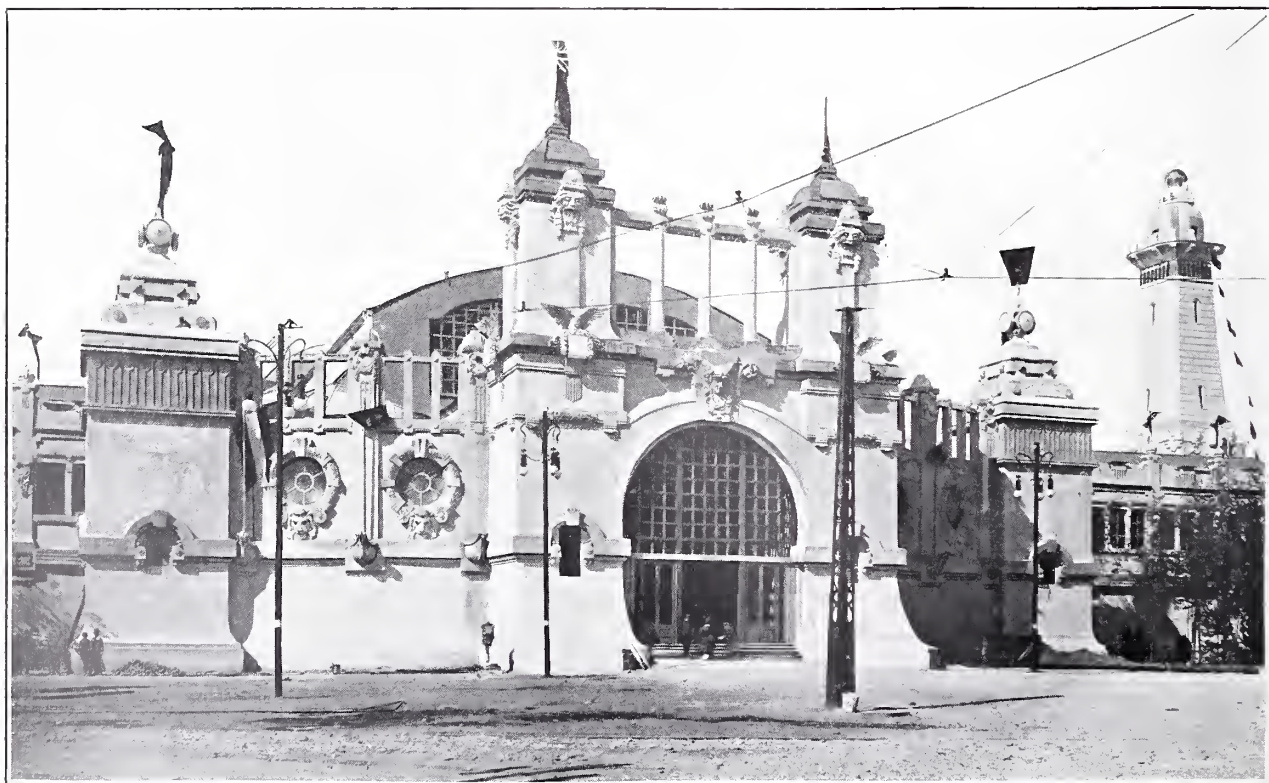
the desert is to a weary traveller. There is a feeling of strength in the towers between the bays, and the size and position of the windows in the dome allow the light to pass right through, so that instead of presenting the usual dull patches of leaden grey they are translucent, and the colours of the stained glass are rendered sufficiently vivid to affect the external elevation. The dome is covered with zinc soldered into one huge sheet, without a passing thought for the vagaries of expansion and contraction. Bearing in mind the differences in temperature between summer and winter in Italy it seems a false economy of labour to have been content with slipshod methods. As a consequence the roof has already begun to show signs of creeping into "ripples." The state of the roof when the Exhibition closes its doors in six months' time is a matter for speculation.

In the French pavilion for Decorative Art the chief interest lies in the difference between its style and that of the rest of the buildings. It is inexpressibly French; anybody with the smallest pretension to a knowledge of the styles would unhesitatingly point it out for what it is; and yet it was designed by the Italian architects who planned the other works in the Piazza d'Armi. It came as a surprise to learn that the architect was not a Frenchman, but perhaps the fact that the work has been entrusted to French craftsmen may in part account for the result. There is none of the trickiness of plan introduced which is the chief feature in so many of the other buildings, for we



ENTRANCE TO HYGIENE SECTION.

have to do with a straightforward rectangular structure with ends fashioned into half octagons. The richness of effect is produced, therefore, solely by the application of ornament. It is the "Frenchness," if the term may be allowed, of this which gives it its decidedly national character. Perhaps it is unfair under the circumstances to institute a comparison between French and Italian ideas, taking these buildings as a criterion; but although



MARINE TRANSPORT. ONE OF THE MINOR ENTRANCES.



in the Italian pavilions there is a better appreciation of the proper positions in which ornament should be bestowed, and a nicer balance of its general proportions, it would be unjust to deny that there is a far greater richness and elaboration of detail in the work of the French decorators. The groups of sculpture at the principal entrance are by an Italian, Signor Labò, whose other works have already been noticed. In one the Genius of Sculpture is modelling a Caryatid, and in the other the Genius of Painting moulds the form of a young girl, an allegorical presentment of colour. The pavilion devoted to Hygiene stands rather in a corner by itself, as if not quite approving of its lighter-hearted neighbours, though it cannot certainly lay claim to any superiority in the matter of the wearing apparel with which Signor Bongi, the architect, has seen fit to clothe it. A flight of steps with fantastic ramps; two classic (?) columns in antis between the now inevitable sloping-sided piles round which health-giving gods and goddesses (in the intervals of health-giving) wave palm branches and play at "Here we go round the mulberry bush"; the usual shield-like masses of decoration with the usual bright-coloured triple streamers; the word "Hygiene" in yard-high letters—and you have the whole façade in little. It is to be hoped, however, that the Milanese may gather under this roof enough material from better-informed nations to persuade themselves how far Italy lags behind on that road which leads to the *mens sana in corpore sano*.

Probably the most striking sign of the progress made in the last decade is the Palazzo dell' Automobilismo, or Motor Car Exhibit. When we recollect that less than ten years ago such a thing as a motor car was unknown, it is astonishing to see this huge building, consisting of a central hall and galleries enclosing four large courts, filled to its utmost capacity with a multiplicity of exhibits connected with this trade of mushroom growth.

The straight and severe lines of the main roof have not in this case been masked with a shell of plaster, and yet those responsible have understood how to rob a plain iron and glass roof of its innate ugliness. The means adopted are simple in the extreme, and there is but one fault to be found with the design, that in some aspects the towers which break the austerity of the straight lines appear to be rather thin. The arch over the entrance is overloaded and reminiscent of the strange Gothic of Orvieto. There is the universal tendency to break up the decorated parts into innumerable slabs, panels, and compartments of bewildering forms, and then fill them up with ornament; the uncouth scrolls and the features met with in unaccustomed positions begin to resemble our Jacobean work. It is a tendency not

to be praised. There is no meaning whatever expressed in the front, and if a message could be extracted from it we should guess that a three-naved arched construction lay behind. This is not the case, however, and the buttress masses have to withstand no thrust of any kind.

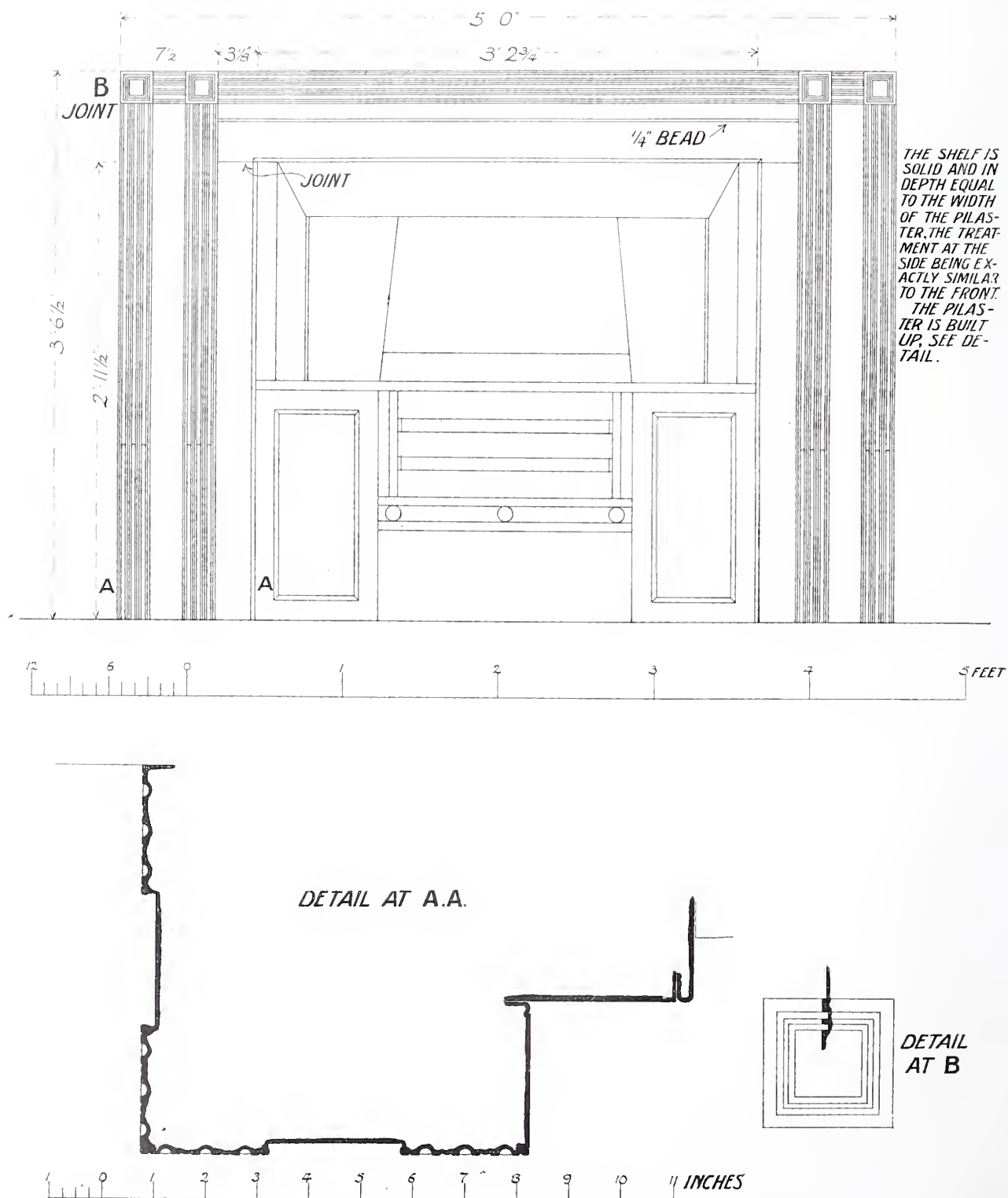
Perhaps the possibilities of modern design are best displayed in such buildings as involve the introduction of long, unbroken walls. Most of the buildings appear to tell us that their authors were conscious of having obtained a unique opportunity of showing us something, and it is only in back elevations and out-of-the-way fronts that this "exhibition-touch" has been omitted. Little fault, for instance, could be found with the treatment of the railway transport buildings. The design is admirably fitted to its purpose, and the plan has had to make no sacrifices to meet the demands of "Art." Moreover, it is a type of decoration which could with advantage be applied to all our English railway goods stations, and the approach to London would be robbed of some of its appalling ugliness. However, we live in a utilitarian age, and the cry of the client is not for beauty but for convenience; he "doesn't care very much about how the outside looks so long as it is comfortable inside, and he doesn't want to spend a halfpenny on the thing more than is absolutely necessary, you know." We have all of us met that client.

From a careful consideration of all the buildings, and comparing one with another, it appears abundantly as a conclusion that there be some things lying at their hearts like the maggot in apple-blossom. The most cherished form for a window is a semicircle at least, and on occasion even horseshoe. It has to be divided into three parts vertically before it is perfect, and the central division must be the largest. The main walls are frequently vertical, but whenever possible their surfaces are either battering or given the appearance of it. In the buttress-piles a form is arrived at closely approximating to an Egyptian pylon, and it certainly is generally effective. Colour is applied somewhat sparingly, but when used there is no hesitation about the brightness of its hue. What is out of place in Lombard Street might not appear incongruous in Lombardy, and the bright tints do not glare in the Italian sun. The climatic conditions resemble in some respects those of Greece; and if the Greeks thought fit to paint their temples of Pentelic marble with vermilion and blue, and saw that it was good, there can be no reason to cavil if the Italians bedeck their plaster palaces in a similar way under an equally brilliant sky.

ROBERT W. CARDEN,  
*Special Correspondent to the "Review."*

# The Practical Exemplar of Architecture.

## IV.—Chimney-pieces.



CHIMNEY-PIECE AT THE SOANE MUSEUM.

MEASURED AND DRAWN BY FRANCIS BACON, JUNIOR.





*Photo: Arch. Review.*

CHIMNEY-PIECE AT THE SOANE MUSEUM, LINCOLN'S INN FIELDS.

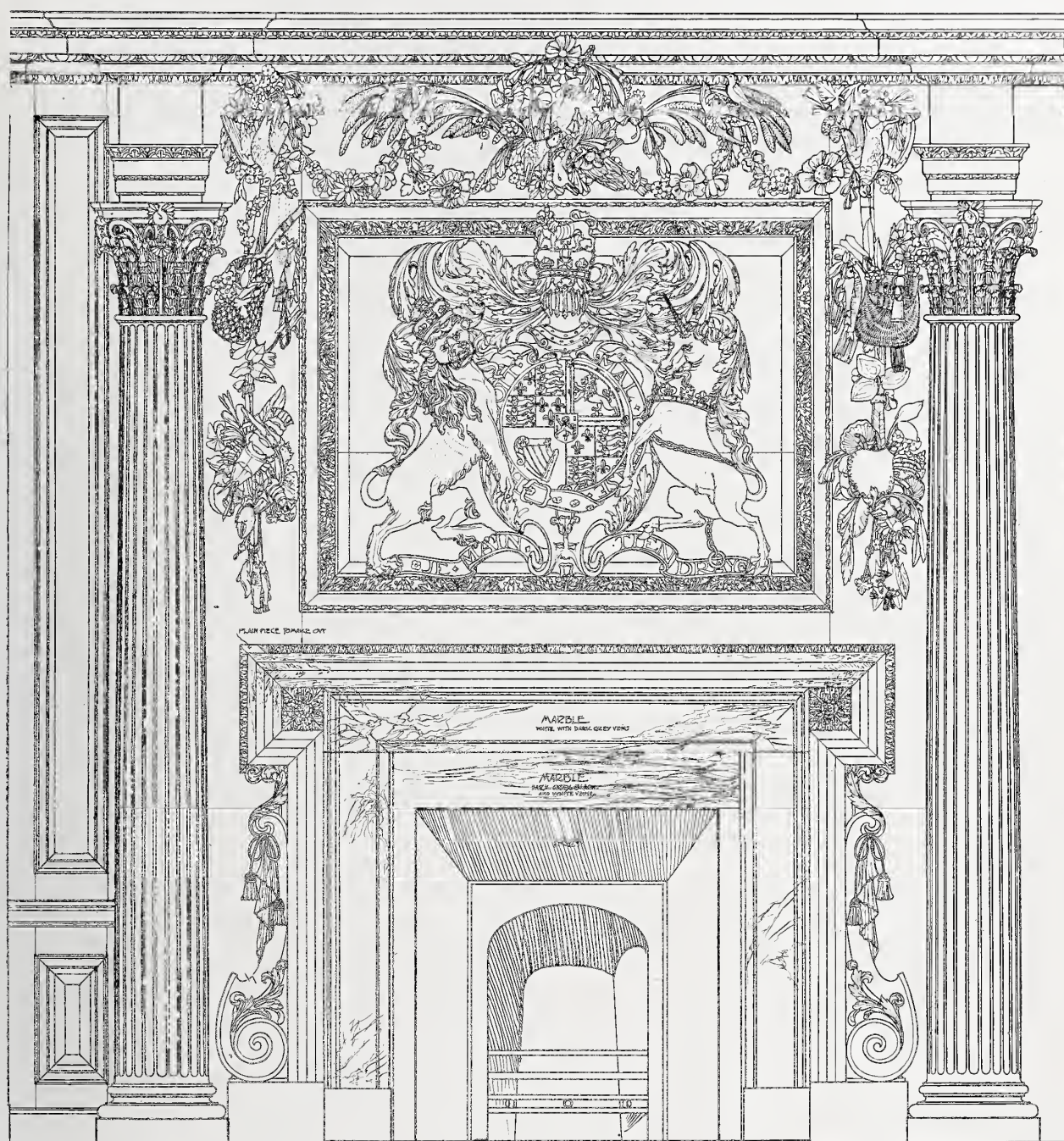




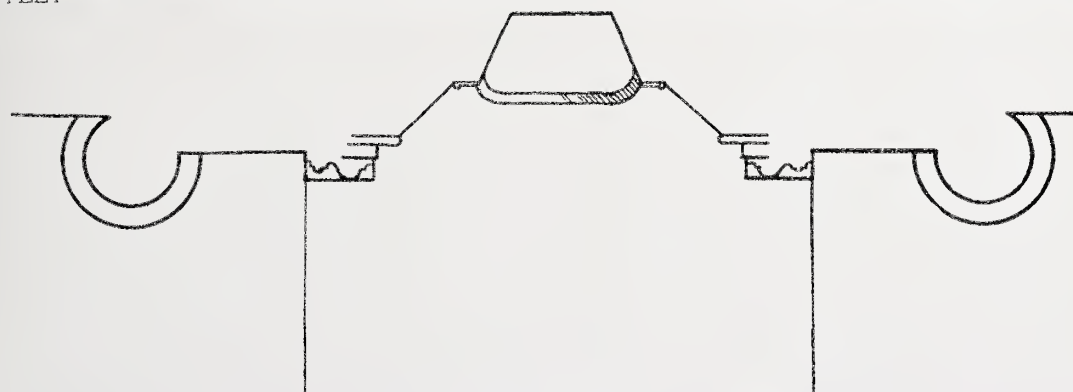
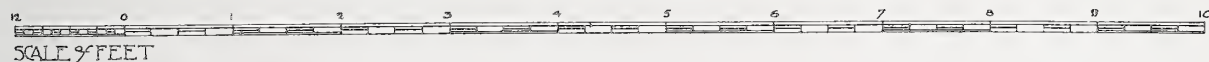
*Photo: Cyril Ellis.*

THE METROPOLITAN WATER BOARD'S NEW RIVER OFFICES  
CHIMNEY-PIECE IN THE WITHDRAWING ROOM.





MARBLE HEARTH



THE METROPOLITAN WATER BOARD'S NEW RIVER OFFICES.

CHIMNEY-PIECE IN THE WITHDRAWING ROOM. MEASURED AND DRAWN BY T. FRANK GREEN.







Photo : Cyril Ellis.

METROPOLITAN WATER BOARD'S NEW RIVER OFFICES.  
DETAIL OF CARVING OVER CHIMNEY-PIECE IN WITHDRAWING ROOM.



# Notes.

## *An Interesting Competition—The Futility of Competitions.*

AN INTERESTING COMPETITION.—There are few fields of draughtsmanship, outside architectural design proper, which evoke in architects such keen interest as does lettering. In the advertisement columns will be found particulars of a competition opened by THE ARCHITECTURAL REVIEW which should be productive of admirable work. It will be noted that the lettering is not to be of the sort appropriate merely to sheets of drawings. As one or more of the winning alphabets will be used as initials in our columns the lettering should be a happy blend of typographic and architectural design. As to how far, if at all, frankly architectural *motifs* should be used is left entirely to the discretion of the competitors. It may, however, be not impertinent to point out that an ornamental letter is not sound typographically if the reader is left in doubt as to what letter is concealed under the decoration. The proprietors hope that the not ungenerous scale of the prizes will give an added interest, and that the entries may be as great in volume as they are sure to be distinguished in character. Several of the commended as well as the winning designs will be published in these pages after the competition is adjudged.

\* \* \* \* \*

THE Chinese are a most ancient nation which has infinite capacity for taking pains, a feeling for decorative colour (especially in pottery) which it would be difficult to surpass, a delicacy of manipulation which is extraordinary, and an instinct for saving and for commercial advantage which is unsurpassable. Probably it was this last quality rather than the others which was found so admirable by the English as to lead to the borrowing from a nation which has not hitherto been considered quite in the van of progress the useless system of competitive examination—that race between the examiner and the crammer which is so profitless for the public, which is supposed to be thereby benefited through the discovery of the most capable public servants. Allied to this futile system is the whole machinery of competition, no matter what the subject may be, a process which requires, for any success in obtaining the good which is supposed to be inherent in it, firstly to attract to the competition those who are really capable, and secondly to ensure an unwarped judgment in those whose business it is to estimate the value of their efforts, joined to sufficient capacity to thoroughly appreciate the conditions of the problem and the means adopted for its solution. The usual result of competition (in any

direction) is to produce, not the best solution, but that which is most immediately telling.

In architecture, with which the readers of this magazine are more closely concerned, the disadvantages of competitions are very marked, and the only advantage which can be urged in their favour (which one must acknowledge is a considerable one) is that it has sometimes given the unknown architect an opportunity of gaining reputation and so establishing himself in practice which he would otherwise have had difficulty in obtaining. Against this advantage must be set, in the first place, the great expense to which all those are put who take a chance in the lottery, a total expense which is out of all proportion to the benefit gained by the profession from the execution of the work, if it is carried out, which is not always the case, showing that from the commercial point of view the system cannot be considered a success. Nor is it any more certain to be successful from the artistic point of view. Even supposing the really best design to gain the premium (which again is not always the case) it becomes a question whether the plan should be considered of the first importance or the elevations, and opinions will differ according to the idiosyncrasy of the judge; and as the best plan does not postulate the best elevation, and *vice versa*, the door is open for comparative failure in one or the other direction. And a great difficulty arises in connection with the judging—it is generally conceded now that a committee or public body is wise to invite an assessor to adjudge upon the merits of the plans submitted instead of expressing its own amateur opinion, though it has sometimes occurred that the award of the assessor has been disregarded when not in accordance with the wishes of the committee. If the assessor's name is known beforehand there is a temptation for the competitors to suit their designs to what are known to be his individual opinions and likings, which generally results in the appearance of weak *rechauffés* of designs which have already been carried out. On the other hand, if the assessor's name is not announced, desirable competitors are not attracted, since they do not feel sure that their works will be submitted to a competent and unbiased judge. But however that may be it is not in average human nature to forego the advantage of making work more telling by exaggeration, when it is to be set in competition side by side with other work and the prize for individual success is considerable, and this does not tend to the production of healthy art.

S. S. G.



THE NEW ROYAL VICTORIA  
INFIRMARY,  
NEWCASTLE-ON-TYNE.



H. PERCY ADAMS, F.R.I.B.A.,  
W. LISTER NEWCOMBE, F.R.I.B.A.  
Joint Architects.

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# The New Royal Victoria Infirmary, Newcastle-on-Tyne.

THE new infirmary is built upon the pavilion system, and consists of eight ward pavilions and the various administrative buildings. The main front of the building faces the Leazes Park, and is almost due south.

The administration block is in the centre with pavilions grouped on either side, all being arranged to obtain the best possible aspect and the maximum of sunlight and air.

The ward pavilions have only two storeys of wards, and are so arranged that the medical wards are all on the first floor and the surgical wards on the ground floor; and on this latter level are the operating theatres.

The out-patient department is close to the entrance on the lower ground floor level.

The nurses' home is on the highest part of the site, facing the Jubilee Entrance to Leazes Park.

The laundry is at the lowest level of the site, in the least conspicuous position, and with the engine and boiler house in the basement under it.

The post-mortem room and mortuary are in an isolated building well away from the wards, and yet convenient for the staff.

## THE ADMINISTRATION BUILDING.

This department is in the centre of the several groups of buildings, and entered from a separate porch.

Passing through the vestibule to the main hall two corridors branch right and left. The entrance hall is supervised from the porter's office, which overlooks the casualty rooms, and near is a room for telephone and telegraph.

Immediately on the right of the central entrance is a sitting-room for the assistant house surgeon, and next to this a room for the visiting consulting staff, and at the end of the corridor is the large medical library, panelled and fitted with oak book-cases, and with an ornamental plaster ceiling; the arms of the city are carved on the chimney-piece.

Contiguous to this library is a staircase communicating with the students' department, which, owing to the slope of the ground, has been arranged below the level of the library, but at the same time above the level of the ground.

The students can thus gain access to the operating theatres and the wards without passing through the main administration buildings. All the medical and surgical offices are concentrated in this part of the administration block, and close to the casualty reception department.

To the left of the entrance hall are the rooms for secretary and clerks, house governor, lady superintendent, and visitors' waiting room.

The service wing has been placed between the main corridor of the infirmary and the administration block, and contains large receiving rooms, rooms for stores, etc., and lifts working direct to the kitchen above.

The central hall is panelled with teak and leather with plaster enriched ceiling, and the arms of various districts connected with the infirmary emblazoned in the windows; from the hall a wide teak staircase leads to the first floor. In the centre is the Board room, so arranged as to take the fine oil paintings from the old infirmary, and on this floor are the house physician's sitting and bed rooms, and four sitting rooms and eight bed rooms for the house physicians and surgeons, store rooms, bath rooms, and lavatories. At the west end of the corridor is a dining hall for resident officers, with a door leading to the service corridor; and in the service wing on this floor are two other dining halls, one for sisters and staff nurses, and the other (a very large one) for nurses and probationers, with pantries in connection.

On the second floor of the service wing is the kitchen, amply lighted, and lined with glazed bricks, also fitted with all the most up-to-date kitchen fittings. There are sculleries for washing up and preparing vegetables, store-rooms and larders with north aspect, carving and distributing rooms, housekeeper's office, and an office for distributing the daily stores.

Situated on the upper floors in the front administration building is the accommodation for all the female servants, and access to these rooms can be obtained by the ward maids from the main corridor of the ward pavilions without passing through any other department; special lavatories are provided with hot and cold water laid on to each.

## THE NURSES' HOME.

This is placed at the extreme west end of the main corridor, and is reached from the infirmary by way of a large winter garden, but the principal entrance is from a private garden on the western front.

There are three staircases at either end and in the centre allowing of easy access, and a double exit in case of fire from all the rooms: also a central lift is provided. On one side of the entrance on the ground floor are sitting-rooms and bedrooms for the assistant matron, and on the other side similar rooms for the night superintendent, and also a room for visitors.

In the south-west corner are large sitting-rooms for nurses and probationers, with kitchen and pantry, and a large cycle store-room on the lower ground level.

On the ground and upper floors are eighty bedrooms for nurses and six for housemaids. Each room faces either west or east, and has a fireplace and window and fitted furniture, and every floor is provided with large linen room, housemaids' pantry, etc., and the necessary sanitary adjuncts.

The total accommodation of the new infirmary is for 400 beds, of whom 192 will be patients in the medical department and 208 in the surgical department.

The medical department consists of:—

Four large wards of twenty-four beds and four wards of one for males	= 100
Two wards of ten beds with two wards of one bed each for children	= 22
Two wards of twenty-four beds with two separate wards of one bed each for females	= 52
Two wards of eight beds with one separate ward for female	= 18
	<u>192</u>

The surgical department consists of:—

Four large wards of twenty-four beds and four separate wards of one bed for males	= 100
Two wards of two beds for males	= 4
Two wards of twenty-four beds and each with two separate wards of one bed each for females	= 52
Two wards of ten beds each with one separate ward of one bed for females	= 22
Eight wards of one bed each for females	= 8
Two wards of ten beds with two sepa- rate wards of one bed each for children	= 22
	<u>208</u>

## THE WARD PAVILIONS.

All the surgical wards are on the ground floor and the medical wards on the first floor. The pavilions are only two floors high, excepting the two at the eastern end of the site, where owing to a difference in the levels of the site they are three floors high, the lower floor not being used for wards but for porters' bedrooms, the special skin department, and the dispensary with rooms in connection.

The ward pavilions are not less than 80 ft. apart, and being axially north and south secure a maximum of sunlight and air. There is a staircase 5 ft. wide to each pair of ward pavilions with a passenger lift in the well-hole.

All the large pavilions are similar in detail, being designed for twenty-four beds each. Next to the entrance of the ward on one side is the ward kitchen, and on the other the sister's room. A day room with bay window is provided for each ward, also two single-bed wards. A room for the examination of secretions, a linen room, and small larder for milk, etc., and a room for patients' clothes are also provided.

The walls of the wards are lined with pale blue tiles to a height of 5 ft., and above they are cemented, and finished with enamel paint. The floors are laid with teak blocks, wax-polished; all angles and corners are rounded. The windows have double hung sashes with a lower deep rail so as to ventilate at the meeting rail, and above is a "fall in" or hopper with glass sides. At the end of the wards on one side are the bathrooms, and on the other side sink rooms and w.c.'s; these annexes are cut off from the wards by means of cross-ventilated lobbies, and between these annexes is a large open balcony.

Each large ward is 102 ft. by 27 ft. wide and contains twenty-four beds, and being 13 ft. high contains 35,802 cub. ft. or 1,500 cub. ft. per bed.

The wall space is 8 ft. from centre to centre of the beds.

The children's wards are only 24 ft. wide instead of 27 ft., and the walls are lined with tile pictures illustrating nursery tales.

The wards are all heated by means of open stoves and hot-water radiators; for ventilation the air is admitted through stoneware pipes, and passes through the radiators into the rooms; the extract flues for the vitiated air are next the ceiling, each ward having independent flues.

## THE OPERATING THEATRES.

These are on the ground floor and level with the surgical wards. The large theatre is octagonal in shape, and has a marble gallery for students entered from off the main first-floor corridor; by



this arrangement students have a splendid view of the operation, and the staff have the whole of the floor area. There is a large north window, and the roof is almost entirely of glass, double glazed to obviate extremes of temperature. The walls are of white glazed tiles and the floor of marble terrazzo; the fittings are all of white porcelain.

In connection with each theatre are anæsthetic rooms, sterilising rooms, and waiting room.

#### THE LECTURE THEATRE AND CLASS ROOM.

These are placed under the large operating theatre at the lower ground level, the lecture theatre accommodating 100 students.

#### THE MORTUARY AND PATHOLOGICAL DEPARTMENT.

This is a separate building well away from the hospital buildings, but reached by the staff by a connecting corridor. The post-mortem room is fitted with two white porcelain tables, and has a laboratory adjoining it. The mortuary has a little chapel attached where a body can be viewed by friends.

#### THE CHAPEL.

The chapel has been built to the north of the main infirmary corridor, and west of central ward staircase, a true Greek cross, one arm being the chancel. There is seating for 140.

#### THE SKIN DEPARTMENT.

This is under the south-east ward pavilion close to the general out-patient department, and thus easily reached by out-patients from the main entrances. It consists of a large waiting-hall for men and women, Röntgen rays and waiting-room, a large consulting and demonstrating room, electrical diagnosis room, and four special bath-rooms, also rooms for Röntgen rays and high frequency in connection with the hospital.

#### THE OUT-PATIENTS DEPARTMENT.

This is situated close to the main entrance gates opposite St. Thomas Street, and so accessible for patients directly they enter the hospital grounds.

The consulting rooms are arranged round a large waiting-hall, and patients will pass from this through the consulting rooms to an outer corridor leading direct to a smaller waiting-hall for medicines, men and women being separately served at the dispensary hatches, and then passing directly outside; thus there will be no confusion and retracing of steps, but every patient will follow a definite route.

The consulting rooms have examination rooms opening off them, and each room has direct access to the outer corridor. An operating room is provided in connection with the surgical consulting room.

The ophthalmic room is 24 ft. long and is fitted with dark room for ophthalmoscope.

There is a surgical dressing-room for minor accidents and dressing next the entrance.

The dispensary is placed so as to be convenient for all the casualty rooms, and also for the rest of the hospital; it is well lighted, and has large laboratories and dispensers' room in connection.

#### THE CASUALTY ROOMS FOR ACCIDENTS.

This department is centrally situated, and on the same level as the ground floor (or surgical) ward corridor, and is easily accessible by carriages from the public road, and entirely away from the public gaze. The department is close to the medical staff rooms, to ensure immediate attendance by day or night; and adjoining the porter's central office there is a large room for accident dressing, with small examination rooms off it, and rooms for medical officer, nurse, and small wards for urgent cases, waiting-room for patients' friends, and space for ambulance.

#### THE LAUNDRY, BOILER HOUSE, AND WORKSHOPS.

These buildings are at the north end of the easternmost pavilion, the basement under the laundry being occupied by a very large boiler-house containing three high-pressure boilers each 30 ft. by 8 ft. diameter, and the entire hot-water heating of the building is controlled from this point by hot-water radiators and pipes supplemented by open fireplaces.

The laundry consists of receiving-room, wash-house, drying and airing rooms, ironing-room, and delivery-room, the linen following a definite route; the fittings are all of the most up-to-date character.

The workshops are at the north-east corner of the site, and comprise joiner's shop, a wood store, stick-chopping room, oil stores, also plumber's and engineer's shop.

The porter's lodge is next to the main entrance.

The entire lighting of the building is by electricity, the current being obtained from the public supply, and the lifts are worked by electric power from the same source.

#### THE BUILDINGS GENERALLY.

The buildings have little ornamentation, and that is concentrated in the administration building. Effect has been obtained by grouping of the

buildings and proportion; the elevations are all red bricks with stone dressings, and the roofs are covered with green Westmorland slates. The internal joinery is chiefly Columbian pine, the walls and ceilings are plastered, and the floors are all fireproof, that of the corridors being of terrazzo marble with tile dado to the walls.

#### THE ENGINEERING WORK.

The engineering work comprised the following:—

1. Steam generating plant.
2. Heating and hot-water service.
3. Electric lighting and electric treatment, telephones and bells.
4. Electric lifts.
5. Steam laundry.
6. Dispensary.

1. The boiler house is below ground level underneath the laundry. The plant consists of three Lancashire boilers, each 30 ft. long by 8 ft. diameter, built for a working pressure of 80 lb. per square inch. These are fitted with Messrs. Ellis and Eaves's system of heated induced draught. In the main flue at the back of the boilers is fixed a large Green's Economiser, and in a special chamber at the base of the chimney a rotary fan driven by an electric motor. The chimney is only 80 ft. high.

2. For the heating and hot water, steam from the boilers is supplied to calorifers, each block being treated separately. Each calorifer supplies a system of mains from which hot-water radiators of the vertical loop type are fed. Similar calorifers supply the hot-water service. The mains for both heating and hot-water service are of wrought

iron, and the whole of the condensed water is returned to the boilers.

3. Electrical energy is supplied from the public mains of the Newcastle and District Electric Lighting Co., Limited, on the direct current three-wire system at 480 volts across the outer wires and 240 volts between the outer and middle wires. A large number of motors are fed at 480 volts, and the whole of the lighting is carried out at 240 volts. The total number of lamps installed is equivalent to about 4,500 of 8-c.p., and there are some arc lamps in use in the laundry. The mains are armoured, braided, and lead-covered, made by Messrs. Callender & Co., and the wires by Messrs. Henley's, Limited. All the wiring is carried out in screwed-steel tubing laid in the floors and behind the tiling on the walls, and is accessible by means of inspection boxes. The fittings are of plain and strong design.

4. There are five electric lifts. That in the nurses' home is of the press-button type. Two are bed-lifts with switch control, and two serve the kitchen, which is on the top floor of the administration block, and these are used for the dinner wagon service to the wards.

5. The steam laundry machines are driven in groups by a number of electric motors. Gas irons are used, and the drying-room is a large chamber accessible to the laundry staff and supplied with warmed air by a fan. Drying-horses are not employed.

6. The dispensary is fitted with a very complete set of machines by various makers, and these are driven by several electric motors; and the workshop has a set of machine tools also actuated by a motor.

H. PERCY ADAMS.

### THE NEW ROYAL VICTORIA INFIRMARY, NEWCASTLE-ON-TYNE.

H. PERCY ADAMS, F.R.I.B.A. }  
W. LISTER NEWCOMBE, F.R.I.B.A. } Joint Architects.

CONRAD DRESSLER, Marlow; RALPH HEDLEY, Newcastle-on-Tyne, Carving.

G. S. LAIDLER, Newcastle-on-Tyne, Decoration and Heraldic Glazing.

H. COCKRELL, Clerk of the Works.

A. PRINGLE, Gateshead-on-Tyne, General Contractor.

#### SUB-CONTRACTORS:

Joinery and Decorative Woodwork—JOHN P. WHITE, Bedford.  
Hot-water, Hydrants and Conservatory—MACKENZIE & MONCUR, Ltd., Edinburgh.

Plastering—JOHN RULE, Sunderland.

Sanitary Works—DOULTON & Co., London; TWYFORDS, Ltd., Hanley, Staffs; SHANKS & Co., Ltd., Barrhead, Glasgow.

Operating Tables—SHANKS & Co., Ltd., Barrhead, Glasgow.

Plumbing—TWEDDIE & Co., Newcastle-on-Tyne.

Ornamental Rainwater Heads—GEORGE WRAGGE, Ltd., Manchester.

Casements—CRITTALL MFG. CO., Ltd., Braintree.

Kitchen Fittings—JAMES SLATER & Co., Holborn Engineering Works.

Electric Lighting—FALCONER, CROSS & Co., Newcastle-on-Tyne.

Electric Fittings—F. & C. OSLER, Birmingham.

Lamps—W. MACFARLANE & Co., Ltd., Glasgow.

Locks—RAMSAY & Co., Newcastle-on-Tyne.

Entrance Gates—BROMSGROVE GUILD OF APPLIED ARTS, Bromsgrove.

Ornamental Plaster Work—G. P. BANKART, of the Bromsgrove Guild of Applied Arts, Bromsgrove.

Tiles—MAW & Co., Jackfield; H. WALKER & SONS, Newcastle-on-Tyne.

Lifts—R. WAYGOOD & Co., Ltd., London.

Furniture—MAPLE & Co., London; BROWN & HUGHES, Lancaster.

Stoves—E. H. SHARLAND & BRO., Manchester; THOS. ELSLEY, Ltd., London.

Strong Room—MILNER'S SAFE CO., Ltd., London.

Terrazzo Paving—DIESPEKERS, Ltd., London.

Special Decorations and Fittings for the King's visit—GOODALLS, Ltd., Manchester.

Expanded Metal for Roofs, &c.—THE NEW EXPANDED METAL CO., London.

Slating—ED. BECK & SON, Newcastle-on-Tyne.

Steam Generating Plant—DAVY BROS. Ltd., Sheffield.

Stained Glass Windows—CLAYTON & BELL, London.





GENERAL VIEW FROM LEAZES PARK

Photo: T. Lewis.

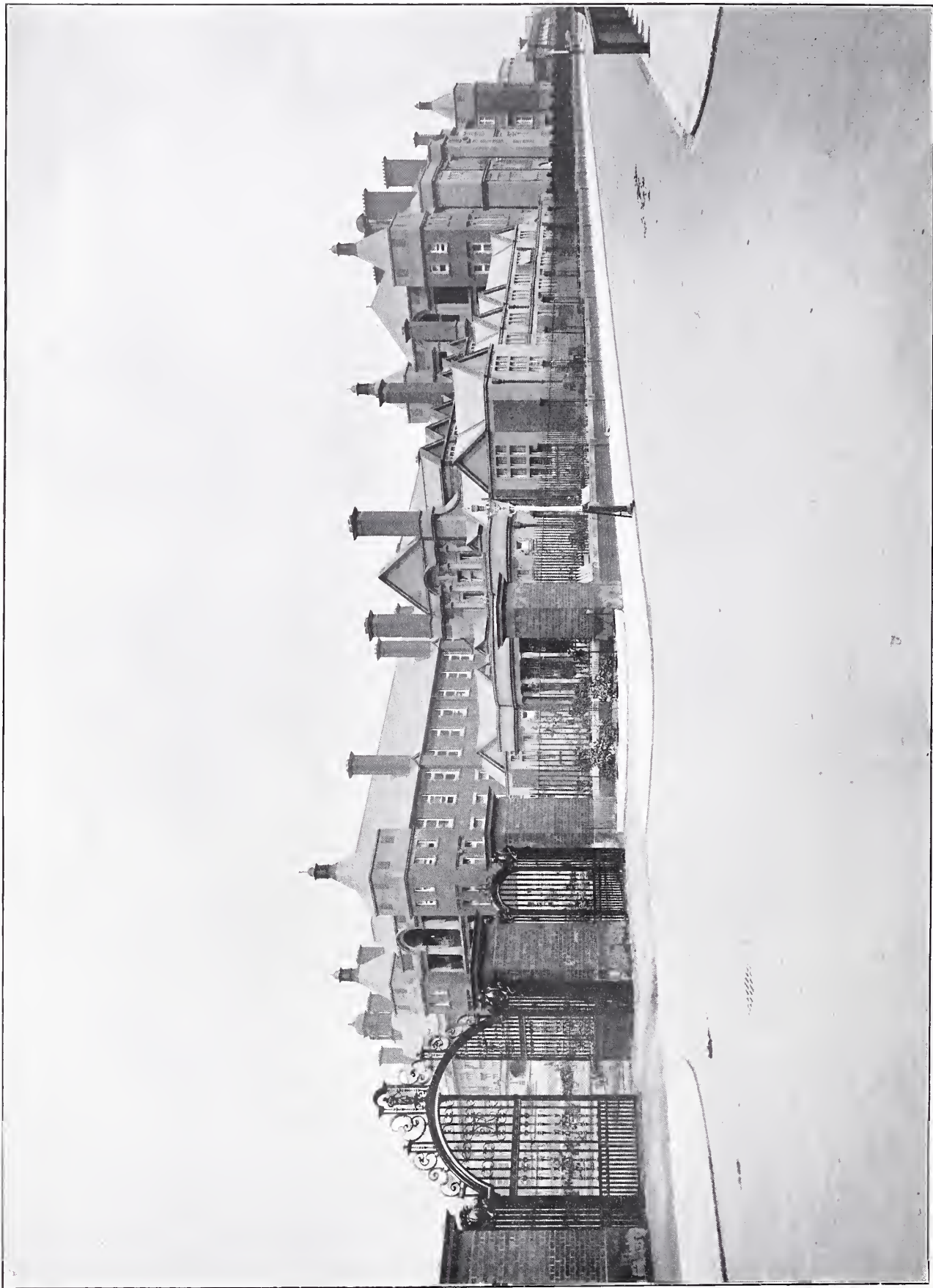
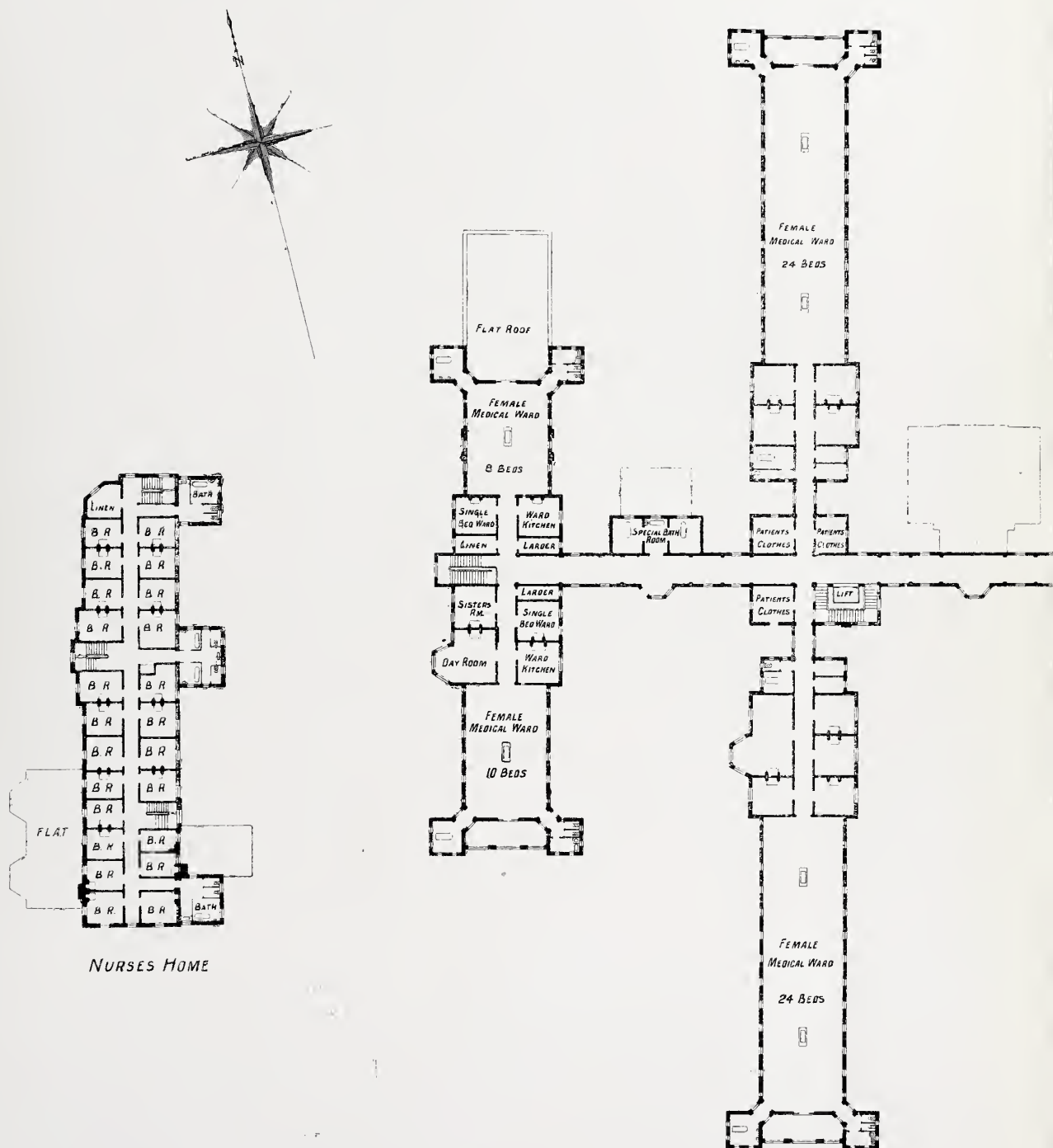


Photo : T. Lewis.

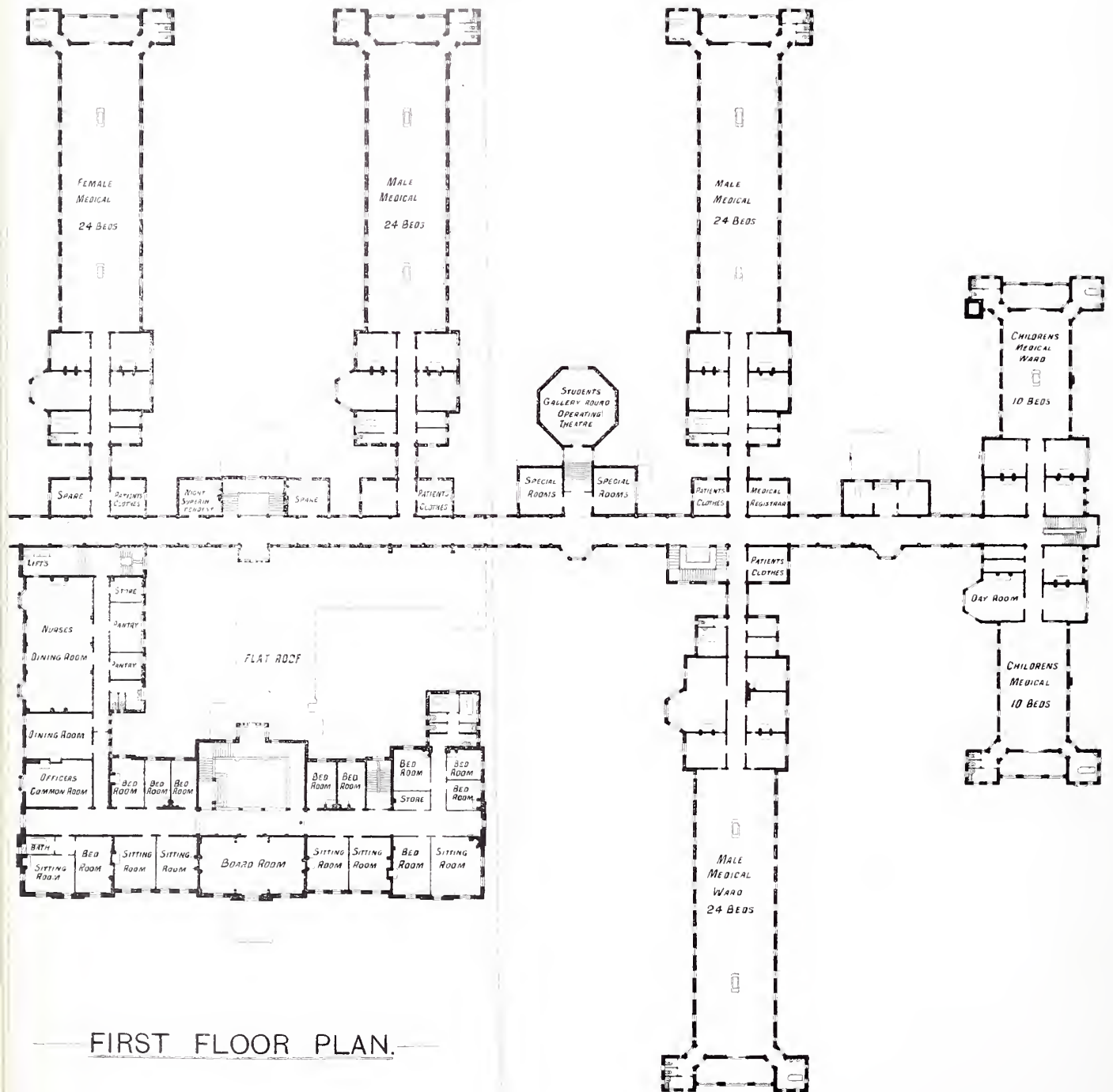
GENERAL VIEW FROM QUEEN VICTORIA ROAD,



NEWCASTLE-ON-TYNE  
ROYAL INFIRMARY.



400 FEET



FIRST FLOOR PLAN.





*Photo: T. Lewis.*

GENERAL VIEW FROM THE NORTH-WEST.



Photo T. Lewis.

THE ENTRANCE GATES.





Photo : T. Lewis.

ENTRANCE GATES AND LODGE FROM THE GROUNDS.



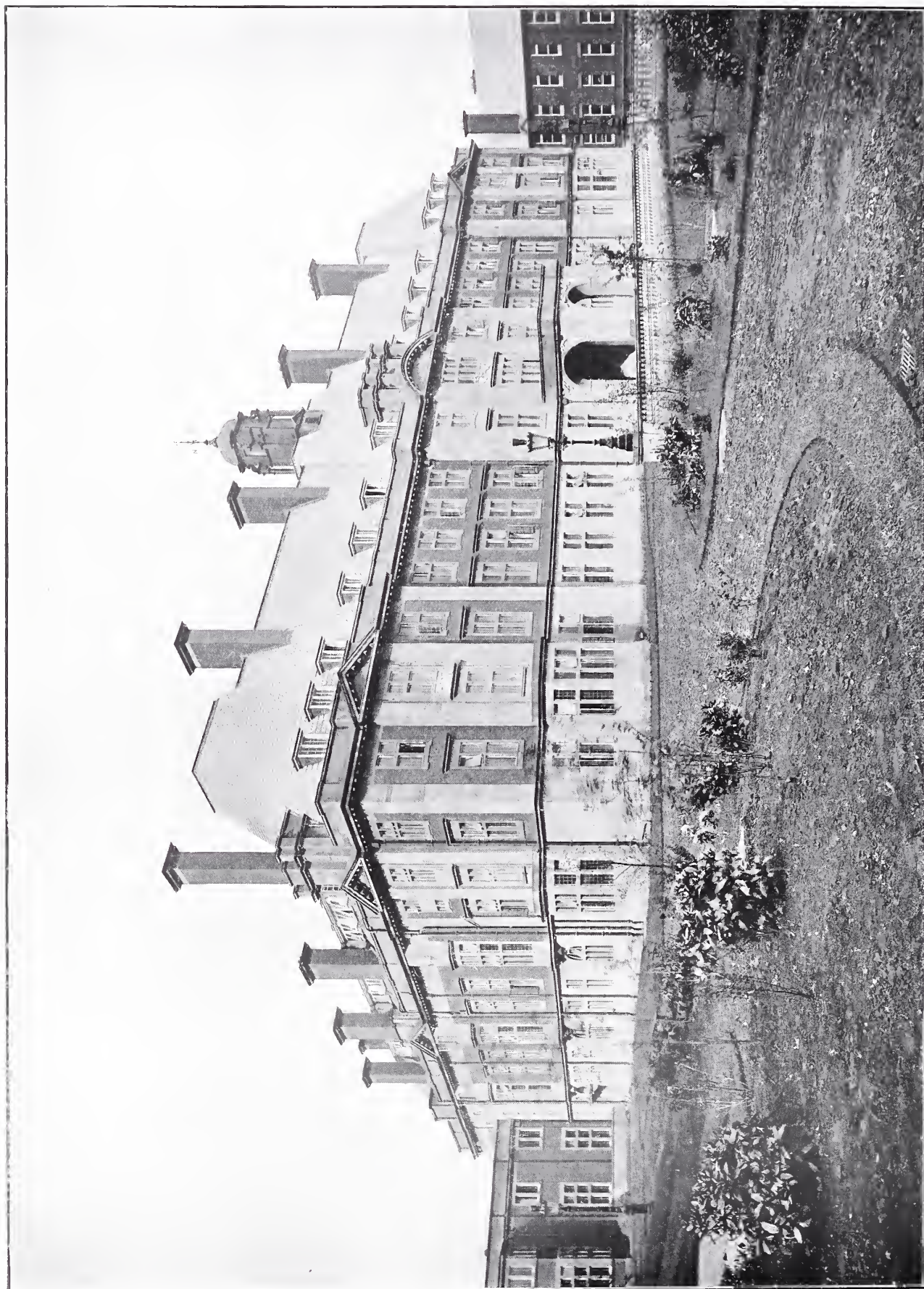


Photo: T. Lewis.

GENERAL VIEW OF THE ADMINISTRATION BLOCK.





Photo: T. Lewis.

THE ADMINISTRATION BLOCK; FRONT VIEW.





*Photo: T. Lewis*





Photo: T. Lewis.

THE ADMINISTRATION BLOCK FROM THE SOUTH-WEST.





Photo : T. Lewis.

NURSES' HOME FROM THE SOUTH-WEST.



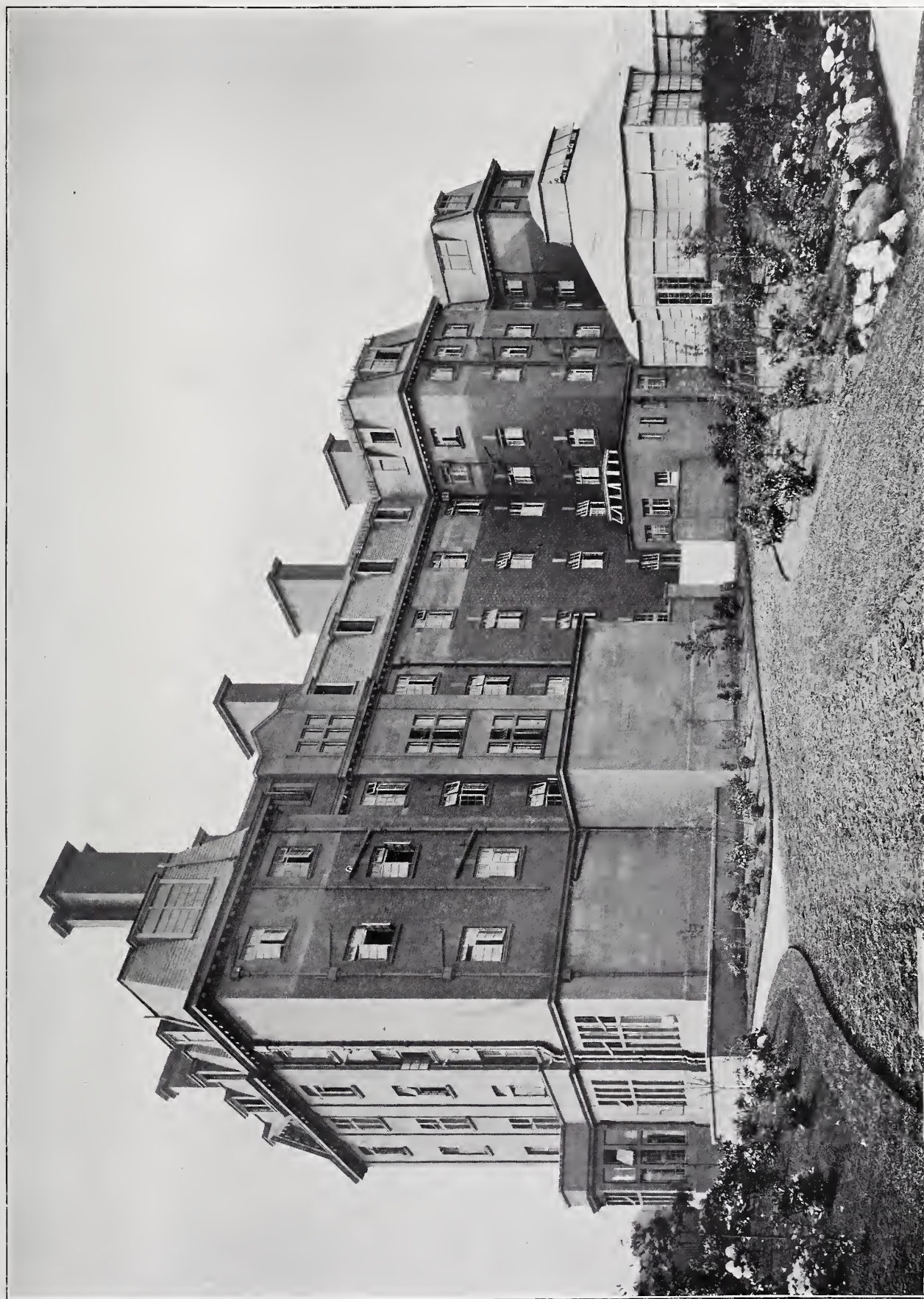


Photo: T. Lewis.

THE NURSES' HOME FROM THE SOUTH-EAST AND THE WINTER GARDEN.





Photo : T. Lewis.

THE SISTERS' SITTING-ROOM.

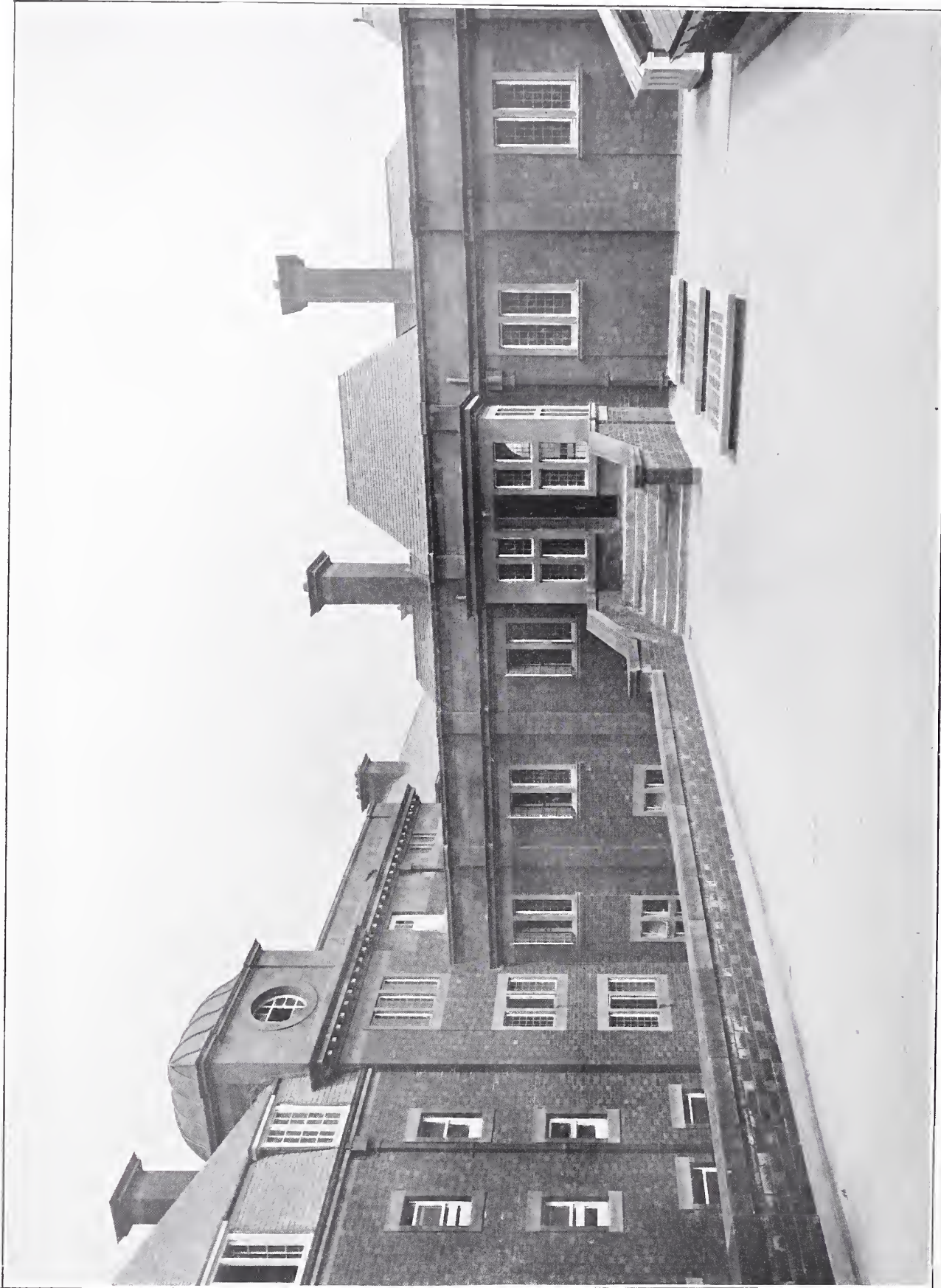




Photo: T. Lewis.

THE WINTER GARDEN.





ROOF GARDEN.

Photo: T. Lewis.





Photo: T. Lewis.

THE OUT-PATIENTS' WAITING HALL. EXTERIOR VIEW.





*Photo: T. Lewis.*

NO. 2 PAVILION.





Photo: T. Lewis.

NO. 3 PAVILION.





*Photo: T. Lewis.*





*Photo: T. Lewis.*

THE HALL FROM THE VESTIBULE.

VOL. XX.—D





Photo: T. Lewis.

HALL AND PRINCIPAL STAIRCASE.





*Photo : T. Lewis.*

THE HALL FROM THE STAIRS.





*Photo : T. Lewis.*





Photo : T. Lewis.

THE BOARD ROOM.





Photo : T. Lewis.

THE SISTERS' DINING-ROOM.



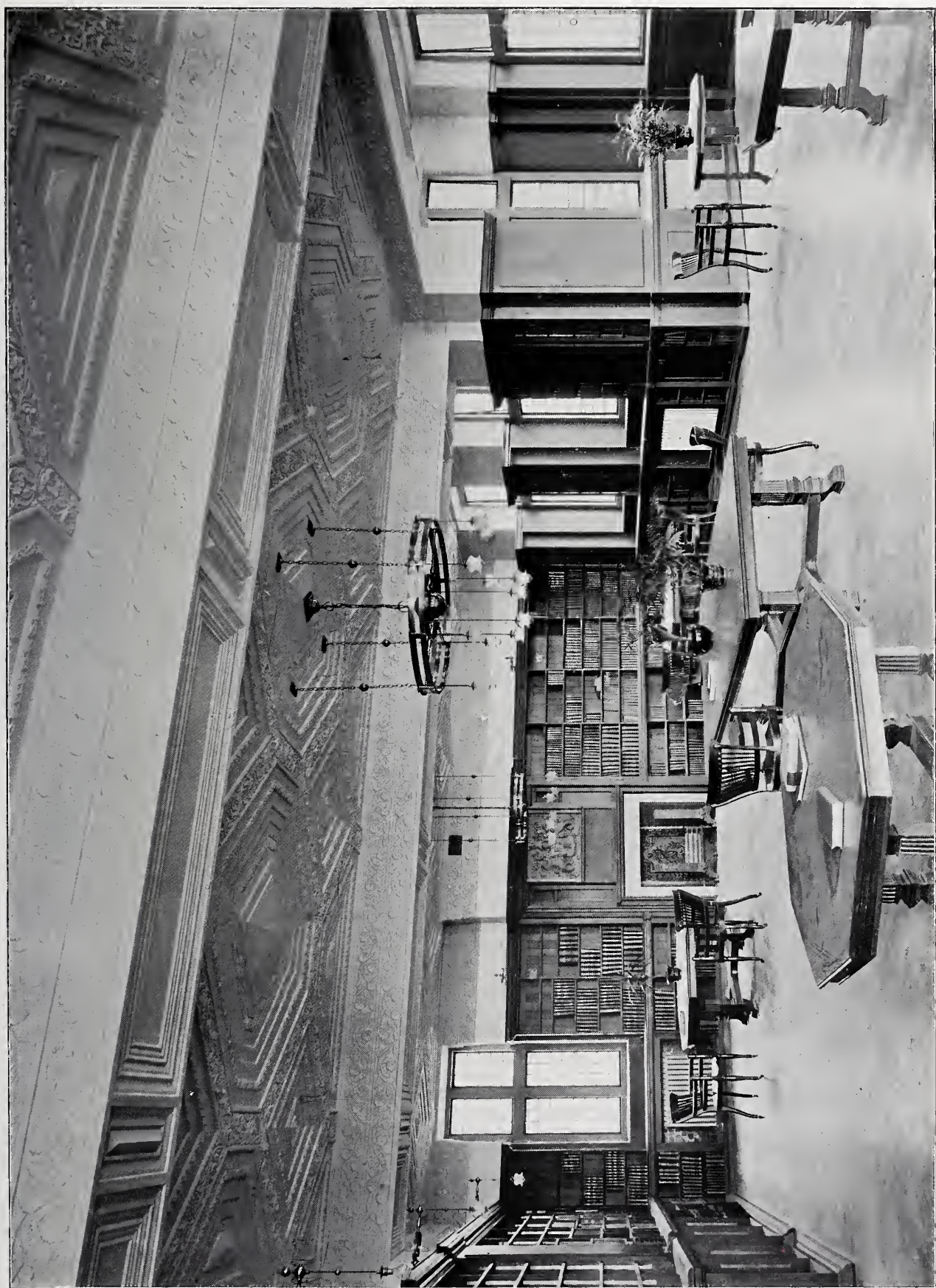


Photo: T. Lewis.

THE LIBRARY.





Photo: T. Lewis.

THE INTERIOR OF NO. 2 PAVILION.





Photo: T. Lewis.

CHILDREN'S WARD.





Photo : T. Lewis.

THE OUT-PATIENTS' WAITING-ROOM.





Photo: T. Lewis.

THE KITCHEN.





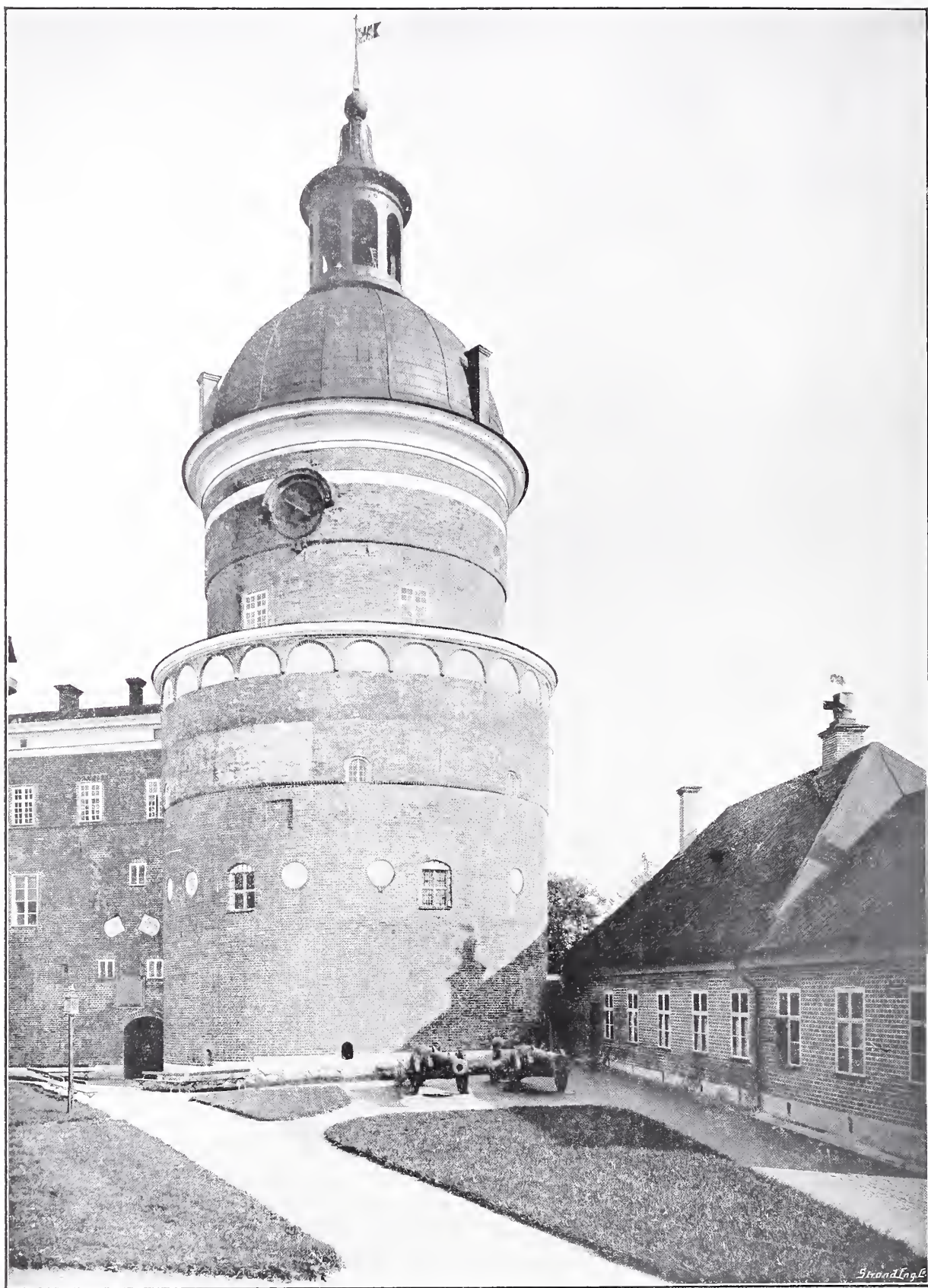
THE LAUNDRY.

Photo: T. Lewis



THE ARCHITECTURAL  
REVIEW, AUGUST,  
1906, VOLUME XX.  
NO. 117.





GRIPSHOLM CASTLE, THE OUTER COURTYARD.



## Some Famous Swedish Castles.—I.

THE Swedish castles I have chosen for the subject of this article form a natural trio, and are all possessed of much and varied interest, both from an architectural and an historical point of view. Sweden—a country, by the way, to the exceeding beauty of which I am always pleased to pay a tribute—boasts a history of singular interest, within which there is no more striking figure than that of Gustavus Vasa, old King Gösta, who ruled over his countrymen from 1523 to 1560, having liberated Sweden from the rule of Christian II. of Denmark, or Christian Tyrant, as they still call him in Sweden. Gustavus Vasa was not only possessed of the most reckless, adventurous courage, he also proved himself to be a wise and circumspect king who, amongst other things, did much towards the erection of strongholds, fortified castles, in various parts of the country. Thus the castles of Gripsholm, Kalmar, and Vadstena all hail from the

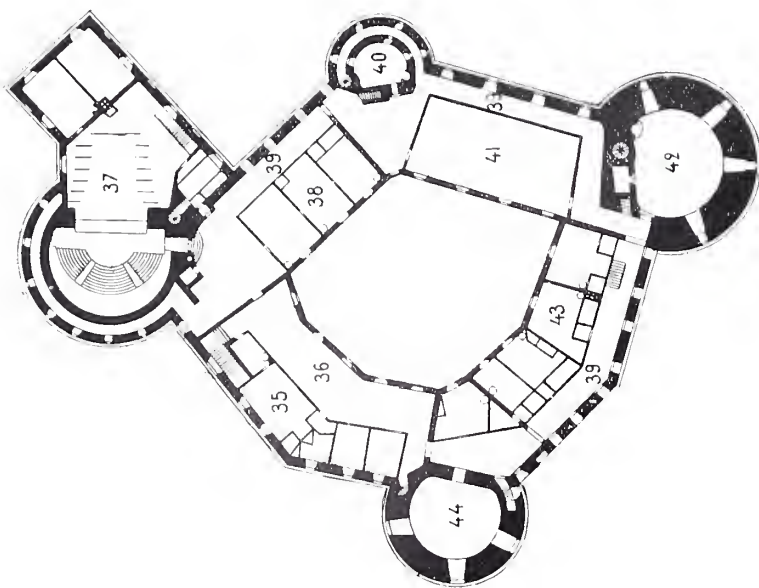
Vasa period, the building of them having been commenced within a span of less than ten years; Gripsholm, 1537; Vadstena, 1545; and Kalmar, 1536. With reference to the latter, it should, however, be understood that there had already been a fortified castle at Kalmar for several hundred years, which Gustavus Vasa strengthened and enlarged.

Unlike numerous English and German castles, for which elevated positions, difficult of access, were often chosen, the three Swedish castles above mentioned all lie on flat land, though to some extent protected by water, and the style and strength of their architecture answer admirably their twofold purpose of serving at the same time as a royal residence and an important stronghold; and there are many traces of similarity between them, prominent among which are the unusual strength of their towers and the extreme thickness



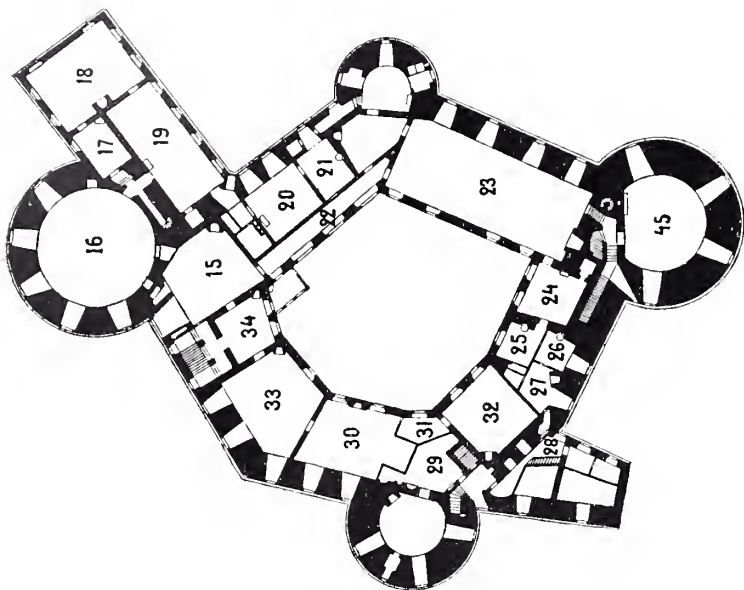
COURTYARD, GRIPSHOLM CASTLE, SWEDEN.





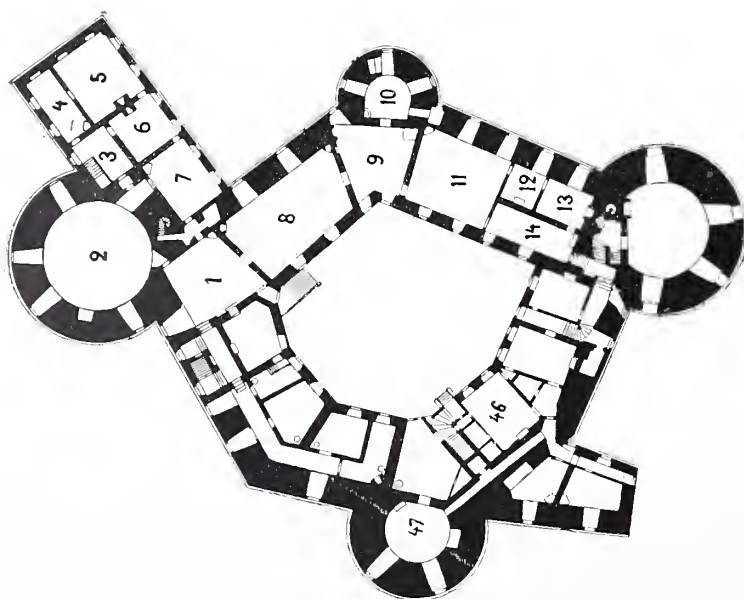
Plan of the Upper Floor.

- 35. Duke Frederick Adolphus's Apartments.
- 36. The Foreign Gallery.
- 37. The Theatre of Gustavus III.
- 38. Royal Guest Rooms.
- 39. The Watch.
- 40. The so-called "Erik XIV." Prison (Prison Tower).
- 41. The Swedish Portrait Gallery.
- 42. Armoury (Grip Tower).
- 43. Guest Chambers.
- 44. The Study of Gustavus III. (Vasa Tower).



Plan of the King's Floor.

- 15. Upper Ante-chamber.
- 16. Gustavus III. Salon (Theatre Tower).
- 17. The Queen's Small Chamber.
- 18. The Queen's Green Salon.
- 19. The Queen's Yellow Salon.
- 20. The Queen's Bedchamber.
- 21. The Queen's Dressing-room.
- 22. The Gallery.
- 23. The "Rikssal."
- 24. The Princess's Ante-chamber.
- 25. The Princess's Bedchamber.
- 26. The Princess's Boudoir.
- 27. Ante-chamber.
- 28. Hall.
- 29. Corridor.
- 30. The King's Bedchamber.
- 31. The King's Small Chamber.
- 32. Council Room.
- 33. Reception Room.
- 34. Cavalier Apartment.
- 45. Lower Armoury (in the Grip Tower).



Plan of Ground Floor.

- 1. Lower Ante-chamber.
- 2. "Diksråd" (Council) Hall (Theatre Tower).
- 3. Hall.
- 4. Ante-chamber.
- 5. Chamber.
- 6. Mlle. Düben's Chamber.
- 7. Apartments of Mistress of Robes.
- 8. The Astrak Apartment.
- 9. Ante-chamber.
- 10. Duke Carl's Chamber (Prison Tower).
- 11. Salon.
- 12. Chamber.
- 13. Bedroom.
- 14. Gallery.
- 46. Crown Prince's Apartment.
- 47. Governor's Apartments (the Vasa Tower).



of their walls. The comparative absence of outer elaborateness which on the whole distinguishes these castles, compared with the buildings of the next century as inspired by Christian IV., King of Denmark, harmonises entirely with the unruly and turbulent times in which they were intended to serve as a safe abode for their royal builder and his men. These walls have witnessed many a stirring event, and ancient romance lends a weird and singular charm to these imposing monuments in the history of their country.

Gripsholm is, perhaps, the most famous of the three. It boasts a picturesque position on the borders of Mälaren, that beautiful lake which sends its clear waters through the very heart of Stockholm. As already stated, the foundations of Gripsholm were laid in the year 1537, and the portion first completed, the Vasa and the Grip towers, with the connecting wing, soon became a favourite residence of King Gustavus, as it was of several of his successors and their queens, amongst whom Maria Eleonora, the widow of Gustavus Adolphus, and it was from this castle that her flight from Sweden took place. The Vasa period in the building of the castle is considered to have come to an end when Queen Hedvig Eleonora, the consort of Carl X., became possessed of it. She herself, her son Carl XI., and

grandson, the famous warrior king, Carl XII., often used to reside there. During her time the castle underwent several minor alterations, and a new wing, the Queen's Wing, was added. This constitutes the Carolian era in the history of the castle. The alterations carried out during the reign of Gustavus III. mark the Gustavian period, during which much was altered in accordance with this monarch's taste. Thus the old church in the church tower was transformed into a theatre, which is still to be seen. The Cavalier Wing was built, and another storey was added to the Queen's Wing. The bridge, which had hitherto connected the small island upon which Gripsholm was built with the mainland, was done away with and the narrow water was filled up. Its importance as a fortress was evidently a thing of the past; the huge gates of oak from the Vasa period were, however, preserved. The Bernadottes, too, made various alterations, but during the last ten or fifteen years much admirable work, in which King Oscar II. has taken a prominent part, has been done towards restoring the various portions of the castle to the style of the period from which they hail.

The accompanying plans show the position of the towers and the various wings, and demonstrate the thickness of the walls, which in some places



CASTLE OF GRIPSHOLM, SWEDEN.





PRISON OF JOHAN III., GRIPSHOLM CASTLE, SWEDEN.

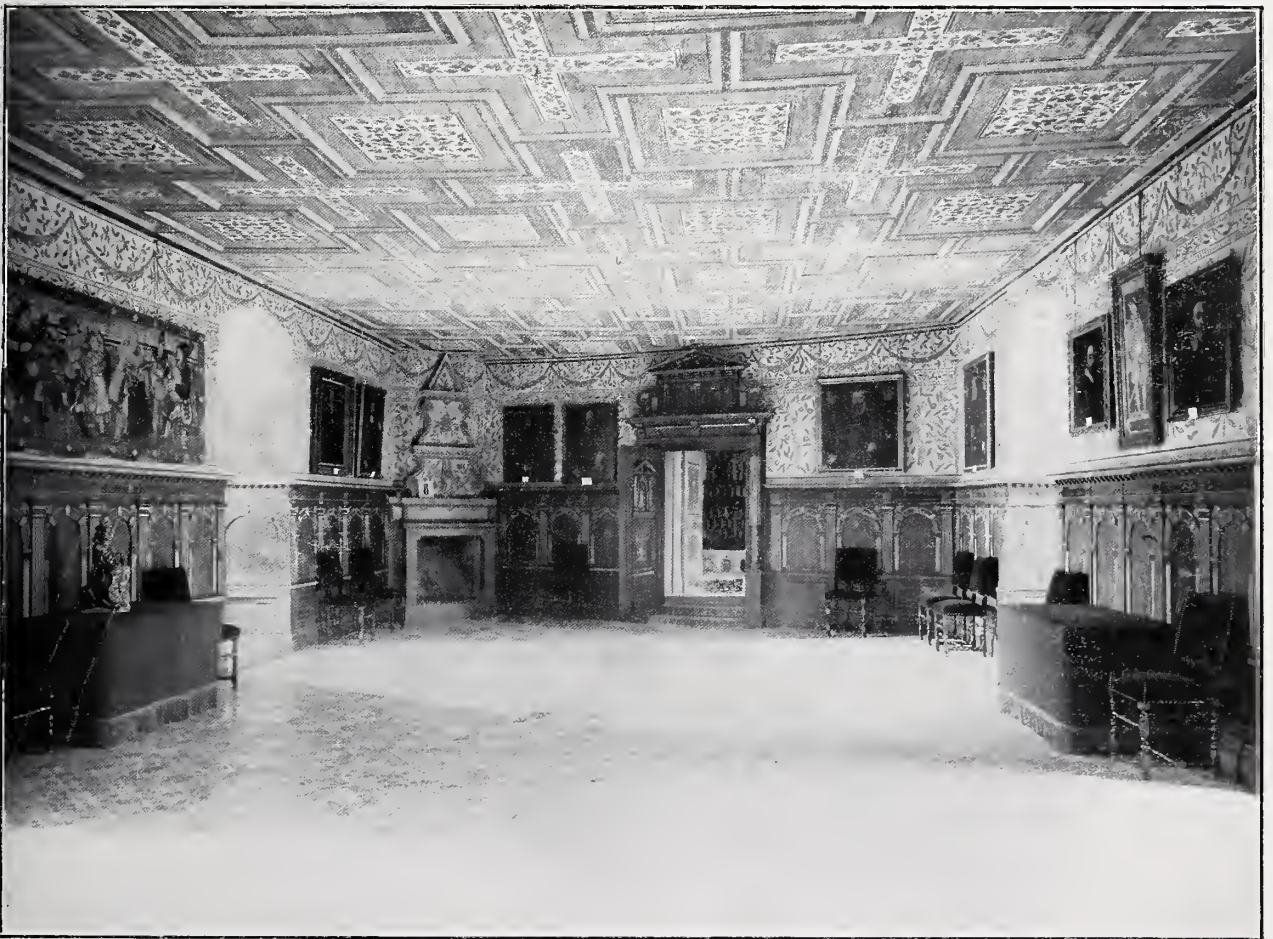


DUKE KARL'S BEDCHAMBER, GRIPSHOLM CASTLE.





DUKE KARL'S ANTECHAMBER, GRIPSHOLM CASTLE, SWEDEN.



THE ASTRAK APARTMENT, GRIPSHOLM CASTLE.



have a diameter of as much as twelve feet. The building material is principally red brick, and the appearance of the whole edifice is most striking. In front of the Grip Tower stand two elaborate bronze cannons, taken from the Russians in the year 1581 by Pontus de la Gardie. But space will not allow of entering into too many details; a more or less cursory reference to some of the more important apartments will have to suffice. Several of the rooms have changed names more than once on account of the various uses to which they have been put.

On the ground floor are sundry antechambers, amongst them the one generally known as Duke Carl's Antechamber, that is King Carl XIII.; the panels and the wall decorations are in the style of the Vasa period. Another interesting room is Duke Carl's Chamber, or, as it is often called, the Prison of Johan III. The high panelling is painted and ornamented with Duke Carl's coat-of-arms and the initials of his motto in German (G.I.M.T., Gott ist mein Trost—God is my comfort), which with the decoration of the arched roof produces a highly characteristic effect, a remark also applying to the bedchamber. Another suite of apartments on the ground floor are those of Queen Hedvig Eleonora, situated in the Queen's Wing and hailing from the subsequent century.

The first floor is called the King's Floor, and contains a number of elaborate apartments, most of which are associated with and appointed and decorated in accordance with the style of later periods. The Round Salon of Gustavus III. is an exceptionally handsome and harmonious room, in which white and gold predominate (time 1769). This salon served as a reception-room for the King and Queen, and a list of the ladies and gentlemen (thirty ladies and sixty-two gentlemen) who had a permanent right to be received by their Majesties is still to be seen there. Gripsholm contains about 2,000 portraits, those of the Round Salon representing the sovereigns contemporary with Gustavus III., amongst them King George III. of England, King Stanislaus

Augustus of Poland, Frederick the Great of Prussia, the Empress Maria Theresa of Austria, the Empress Catherine II. of Russia, etc.

Still more important than the Round Salon is the Rikssal, now restored to the impressive style of the Vasa period, and the largest apartment in the castle. The old panelling is painted, its ornamentation being in a simple Renaissance style, and the old ceiling has again been put up. Amongst the inscriptions in the window niches may be seen the mottoes of the Vasas, and the small-paned windows are ornamented with stained glass. Another handsome apartment is the King's Council Chamber, with its charming wood ceiling from the Vasa period, wonderfully well preserved. The furniture is of a somewhat later period, and covered with Oriental silver brocade, a present from the Empress Catherine II. of Russia. This room contains some splendid Renaissance cabinets and caskets. This apartment and the neighbouring King's Bedchamber, remarkable for its fine old Gobelins, its gorgeously elaborate bed, and sundry pieces of antique furniture, made a much more appropriate state prison for King Gustavus IV. Adolphus (1809) than did the small room known as Erik XIV.'s Prison on the next floor, where tradition has it that the luckless King, said to have been poisoned at the instance of his half-brother Johan III.—himself for several years a prisoner at Gripsholm—was kept in close confinement, in the very castle built by his illustrious father. From the study of Gustavus III. there is a wide and magnificent view of the picturesque environs. On the same floor, in the theatre, or, as it was formerly called, the Church Tower, and the Queen's Wing, is the small but elaborate theatre of that theatre-loving sovereign. The theatre, which occupies the space of the old church or chapel, adequately demonstrates the style of what is called the Gustavian period. These are only a few interiors chosen more or less at random from one of the most interesting and most striking royal castles of Europe.

GEORG BROCHNER.

*(To be continued.)*

# Lead Garden Statues.

I do not think that any apology is needful for the inclusion of statues in a series of articles dealing with architectural leadwork, even where, as in the case of the figures here illustrated, they belong only to the garden.

Gardens, after much neglect, are again recognised as being within the architect's province, and happily so, since many houses demand a formal garden for their proper setting. For this we are largely indebted to the luminous criticisms and descriptions of Mr. Reginald Blomfield, Mr. Inigo Triggs, and Mr. W. R. Lethaby, amongst many others. Lead statues may be divided into two classes, more or less clearly defined. There are the purely garden statues, which compose with clipped hedges, ordered paths, and green distances; and those that are allied with stone architecture, whether in niches or on parapets of great houses in the classic manner. Others find their place in an enchanting middle world between garden craft and architecture, by decorating the piers of entrance gates, or the stone garden-houses of the eighteenth century.

With lead statues in architecture I hope to deal in another article. The gardens of Melbourne, Derbyshire, which were remodelled by Henry Wise, are a mine of leadwork. There are two *Kneeling Slaves* in the upper garden, of which I illustrate one (Fig. 5). They were, until lately, painted black with white waist cloths, but, when recently mended, the paint was fortunately removed. A touch of gilding on lead statues is a reasonable decoration, and on such a figure as the *William III.* on College Green, Dublin, the gilded horse-trappings greatly add to the general effect. The loading of the whole surface with oil paint, and successive coats of it, is, however, an unalloyed misfortune. With the loss of the natural patina which weathering brings, lead loses half its charm, which is largely in its texture.

At the bottom of the Melbourne gardens, one on each side of the "Birdcage" (an exquisite garden-house of open ironwork, of which a photograph appeared in the *Builders' Journal* of November 29, 1905), stand *Perseus and Andromeda*, facing the fishpond. They have been painted white, and have a ghostly look against the background of yew. Perseus is holding out an affrighting Medusa head, and turns away with a rather unconcerned manner, not devoid of swagger. His clothing is somewhat nondescript, and looks Roman

rather than Argive, but the artist has been careful to give him the winged sandals and the helmet of Hermes. He is a heavy figure compared with such a Perseus as the Canova in the Vatican.

Andromeda is rather more interesting (Fig. 12). She is chained to the rock in orthodox fashion, and the pose of persecuted maidenhood waiting and crying for deliverance is tolerably convincing.

These two, after all is said, are merely classic personages as the eighteenth century understood them. They are ornamental, and give a pleasant academic refinement to a garden which is reminiscent of courtly manners and a sedate, if not very intelligent, affection for the arts of life.

The *Amorini* which are

illustrated on page 70 are something more. Some are chubbily pretty, and the story of quarrel and reconciliation told in the four groups of two (of which one is shown in Fig. 3) gives a kind of triviality to the figures which perhaps spoils them a little for us in 1906. Not that there lacks a great taste for trivialities to-day, but it is of the essence of the successfully trivial that it should be "in the movement."

The single figures are more admirable. The artist had no story to attend to, and the modelling has benefited. It would be difficult to find a boy figure of a happier grace than that of Fig. 1. His pose is very like that of a bronze Cupid of the



FIG. 5.—KNEELING SLAVE, MELBOURNE.





FIG. 1.



FIG. 2.



FIG. 3.



FIG. 4.





FIG. 12.—ANDROMEDA, MELBOURNE.



FIG. 13.—HERCULES, SHREWSBURY.

school of Andrea del Verrocchio in the South Kensington Museum. He stands on a pedestal in the middle of a large sunk basin of masonry, and gaily spouts up water through a brass tube, which he holds in his mouth. His brother of Fig. 2 was busy with his bow, and though the bow has perished and the arrow has long since found its mark, the look of mischievous intent remains. The crushed look of his right leg is due to the partial collapse of the lead. These two figures have the great merit (not shared by him of Fig. 4) that they show no excess of movement.

The tendency of sculptured amorini is to a (not unnatural) liveliness of limb which is of less happy effect in lead than in bronze, but the quiet action of these boys makes them rank high in their race. My last example, Fig. 4, is the most lively of the whole series, and not without sufficient reason. He has disturbed a nest of hornets in the hollow of a tree stump, and they are working their vengeance on him. One is on his right hand, another on his face, and his fat little person is paying the toll of interference. His features are screwed into an ecstasy of pain, but the sense of artificiality remains to spare us the discomfort of too genuine a sympathy. One more Cupid is illustrated in Fig. 7. His origin is unknown to me, as he was photographed in a dealer's shop, but life is more serious to him than to them of Melbourne. He carries a sun-dial, and has no

time for hornets or for archery. He differs markedly from the Melbourne family in his wings, which droop to the waist, and are large and practical for flying.

The *Hercules* at Shrewsbury (Fig. 13), in the Quarry Avenue, is a particularly fine example. The eighteenth century saw him cast, but cannot claim him, for he is a reproduction of a classic original. (A delightful little copy in exquisitely yellowed ivory can just now be seen in a Bond Street window.) The rains and airs of the Severn Valley have dealt very kindly with the lead, and have shaded the brawn and muscle of the god to the great enrichment of the modelling.

I illustrate in Fig. 10 the figure of *Paris* adjudging the apple (South Kensington Museum), as it seems to be a good example of a type of statue which is not suitable for reproduction in lead. The original is in marble at the Louvre, and was by Nicolas François Gillet (1709-1791). There is no record as to the date of this lead reproduction, but, judging from the terra-cotta pedestal on which it stands, it is probably of late in the eighteenth century. It is a little figure 2 ft. 10 in. high, and the subject seems altogether too delicate for lead. If the original material, marble, were abandoned for metal, the smooth feeling of the figure seems to call for bronze; lead has too much texture; but, whatever the material, the figure is graceful and charming.





FIG. 6.—HARDWICK HALL.



FIG. 7.—HARDWICK HALL.

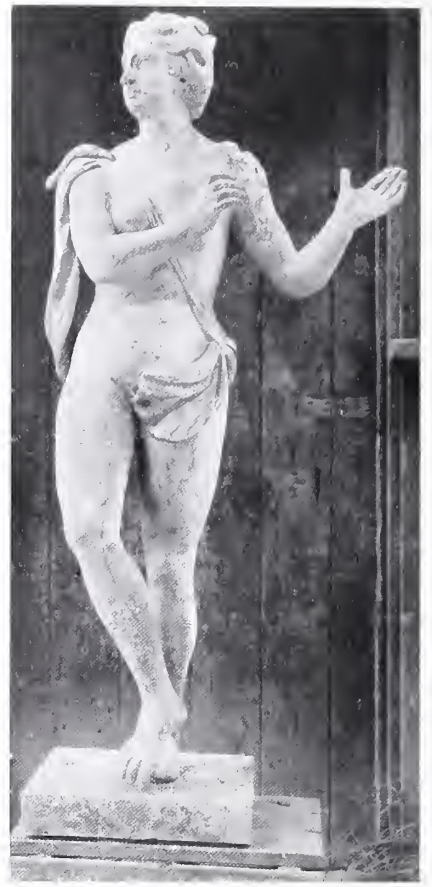


FIG. 8.—CASTLE HILL.



FIG. 9.—HARDWICK HALL.



FIG. 10.—PARIS (S.K.M.).



FIG. 11.—SHEPHERDESS (S.K.M.).



Another figure in South Kensington Museum is illustrated in Fig. 11. It is 4 ft. high and of a not uncommon type of garden ornament. A shepherdess is not very convincing, even in a Watteau picture, but the triviality which is gay in colour becomes dreary when pictured in lead. The natural sympathy between subject and material is violated here, when a lady of light aspect poses and simpers in the heaviest possible material. There is a shepherd to match her, and they must have been a popular couple, for another pair from the same patterns exists in the possession of a dealer.

In this article the *Neptune* of Fig. 14 has no proper place, for he stands in the street at Bristol, in the shadow of the leaning tower of the Temple Church, and his surroundings suggest anything but a garden. The figure has, however (if a local tradition recited on the pedestal has any value), an historical interest which gives it an important place among English lead statues. The story has it that the pumps from captured ships of the Spanish Armada provided the material, and that it was given by a Bristol plumber to celebrate the great defeat. However that may be, the figure is certainly old, as lead statues go, and if it is accepted as sixteenth-century work, it is the oldest lead statue in England known to me. Mr. Lethaby thinks "the limbs are contorted with too much life," and it is certainly a coarse piece of modelling, but it is the most interesting figure in Bristol. There is a good equestrian bronze<sup>1</sup> of William III. in a forgotten square which the tide of fashion has left

to the tender mercies of warehousemen, but most of the prominent sites are taken by simulacra of modern worthies bad enough for the Embankment.

At Hardwick Hall, Derbyshire, there are six

lead figures, but they are not native to the place. The gardens were laid out in the formal manner by the late Duke of Devonshire, and the figures

were then imported from Chatsworth. It has been suggested to me that they may be the work of Cibber. The records remain of his employment by the first duke at Chatsworth, to adorn with statues and a fountain the lawn facing the south front. Whether the lead figures now at Hardwick are Cibber's work or not, it is probable that they stood by the south front, and were removed when the sixth duke replaced them by copies from the antique.

I do not incline to the Cibber theory (he was the father of Colley Cibber the dramatist), for he flourished from 1630 to 1700, and the Hardwick Hall statues have a later look.

Of the six figures, I illustrate two, *Sculpture* (Fig. 6) and *Music* (Fig. 9). They have a solid Teutonic air, and while there is a certain cleverness in the draping of *Sculpture*, they cannot be regarded very seriously. At Castle Hill, Devonshire, the residence of Lord Fortescue, there are numbers of lead figures. In addition to the delightful bust of Pan, sketched by Mr. Lethaby ("Lead-work," p. 107), there are couchant animals, *A lion, a lioness, and a greyhound*, which I show in Figs. 16, 17, 18. The lion is not remarkable, but the lioness has a powerful head, and is vigorously modelled. The greyhound is a quite convincing hound, and the artist has managed to give him the look of wistfulness which is so attractive in life.

It is of interest to note that in the gardens of

Chiswick House there are a lion and lioness in stone, obviously copied from those in lead at Castle Hill, but inferior to them in execution. At the latter house there is a lead sphinx, and we



FIG. 14.—NEPTUNE, BRISTOL.



FIG. 15.—LEAD SEAT, CASTLE HILL.

<sup>1</sup> I say bronze loosely, but the statue is, I believe, actually of brass, for it is brilliantly green with verdigris.





FIG. 16.—CASTLE HILL, DEVONSHIRE.



FIG. 17.—CASTLE HILL, DEVONSHIRE.



FIG. 18.—CASTLE HILL, DEVONSHIRE.

find an exact copy, evidently cast from the same patterns, at Chiswick. There is also at Chiswick a replica of this sphinx in stone. I have long hoped to be able to connect the modelling of lead garden ornaments with some of the greater sculptors of the eighteenth century. Though I cannot definitely attribute the *lion*, *lioness*, *greyhound*, or *sphinx* of Castle Hill and Chiswick to Michael Rysbrack, a most admirable goat *couchant* in stone at Chiswick, on the same scale as the others, has the signature M. RYSBRACK incised on the pedestal. It is perhaps not too bold therefore to ascribe the Castle Hill animals to the same hand.

There is a formality about these beasts lying on their stone pedestals which one does not always find in the lead fauna of gardens. Sometimes the base of the casting is let into the lawn. In one case of a fox stealing away with a fowl, the figure ceases to be art and becomes an illusion in lead, a theatrical trick far removed from the spirit of the formal garden. A variation of the same trick is a sportsman standing on the grass, and leaning forward to aim with a long fowling-piece. Both these are a kind of joke with which it must be infinitely tedious to live.

The *Venus* of Fig. 8 is something more than nude. She is naked, and, one is convinced, unashamed. The days of her making, the beginning of the eighteenth century, perhaps account for her awkwardness of pose.

At Castle Hill the designer of the gardens had more than a fondness for leadwork. It amounted almost to obsession. The seat of Fig. 15 is of lead, and of a riotous ugliness. The swag has a fat, amorphous, lonely look which is positively grotesque. White marble seats in an English garden are inappropriate enough, for they grow green and have a cold and dank look; but this lead object is perhaps the best example of how not to make a garden seat.

One is tempted to wonder whether the day of garden statues is gone, whether in fact their only proper place is an old garden, and the only proper statue an old statue.



It would be a bold man who started out to include in any scheme for a new formal garden a gallery of reproductions from the antique or coy groups of figures in the Watteau manner, such as one finds late in the eighteenth century. Given, however, a garden planned on spacious lines, statues give a point round which the lines of paths and close-cut hedges will group successfully. In the best historic English gardens, such as Melbourne, every figure has significance in relation to the general plan. In others, less successful, statues are apt to stand about in desultory fashion, which distracts attention from natural beauties and leaves a sense of the superfluous. Garden ornaments, whether fountains, vases, or statues, seem to have their justification in so far as they give scale and cohesion to the garden. Their own merit as sculpture, though not a negligible factor, is after all a secondary one, and in choice of subject for a statue the light touch is the happy one.

In a fountain one would rather see a river nymph than Neptune; and to head a lilac avenue a faun rather than a portrait statue of a Minister of Agriculture.

Of modern subjects there is no lack. For the pleasaunce of an imperially-minded baronet, what more suitable than slight figures emblematic of the Colonies. To the wealthy actor-manager a leaden Puck would still bring pleasant thoughts. To the successful general anything in khaki

should sternly be forbidden, and Eastern figures to the mining millionaire.

POSTSCRIPT.—Since finishing the above article I happened upon a paper in the *Annual Register* of 1764, which shows that the general feeling about lead garden statues of the writer, Mr. Shennstone, was the same as I have outlined. He calls it "Unconnected Thoughts on Gardening," and, amongst much that is delightful, writes:—"By the way, I wonder that lead statues are not more in vogue in our modern gardens. Though they may not express the finer lines of an human body, yet they seem perfectly well calculated, on account of their duration, to embellish landscapes (*sic*), were they some degrees inferior to what we generally behold. A statue in a room challenges examination, and is to be examined critically as a statue. A statue in a garden is to be considered as one part of a scene or landscape; the minuter touches are no more essential to it than a good landscape painter would esteem them were he to represent a statue in his picture." This (as it seems to me) excellent good sense is the more notable, when it is borne in mind that by 1764 lead garden statues had fallen into some disrepute, and the palmy days of the Piccadilly lead founders had gone for ever.

LAWRENCE WEAVER, F.S.A.

[With the exception of the Melbourne figures, and the Shrewsbury Hercules (for permission to reproduce which latter I am indebted to Mr. W. D. Haydon), the photographs are by Mr. Galsworthy Davie.]

## Notes.

### *Old Clapham—The Progress of the New Campanile—Mosaic at Westminster— Art and Commerce.*

THE row of quaint old houses illustrated on the next page, noticeable for mellow red brickwork and curious forecourts, and in the spring for the early almond blossom appearing, stands on the north side of Clapham Common, and is of great interest. Chelsea has had its Carlyle, and Highgate its Coleridge; but what quiet suburb a hundred years ago ever witnessed such an event as did this respectable old quarter, when one of these very houses, if tradition is to be believed, was a girls' boarding-school? Here came the youthful Shelley, expelled from Oxford at nineteen for his unsavoury writings, to condole with his sister's school-friend, Harriet Westbrook, who complained of ill-treatment and threatened to commit suicide. Shelley was no doubt sympathetic (he was supposed to be studying medicine, and was then living in Poland Street, Soho), and

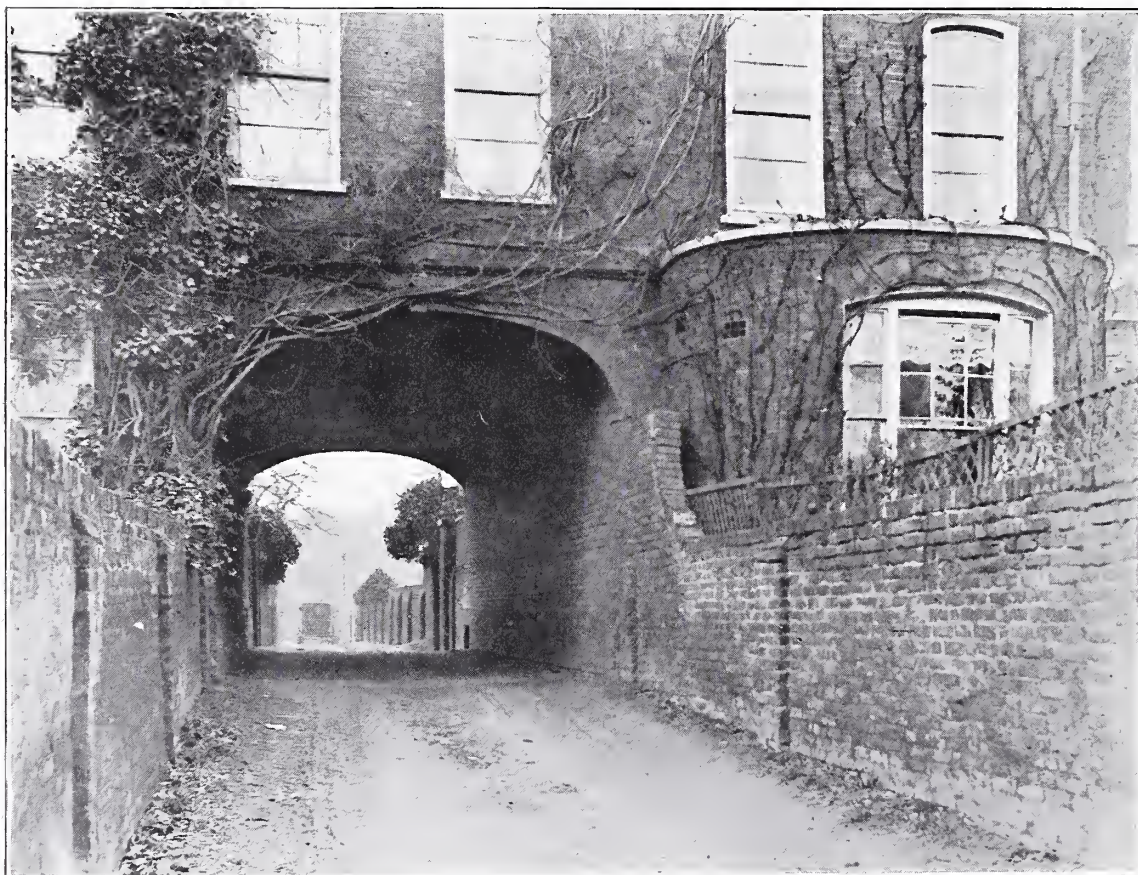
we hear that Harriet was "very rosy" and a pleasing damsel withal. Her parents were retired innkeepers, but Shelley's father was heir to a baronetcy, and so we may surmise that they connived at that little arrangement by which he rescued his friend from one of those iron gateways, and ran away with her to Edinburgh, where they were married, before she was sixteen. Two years later they changed their minds again.

On Clapham Common, too, lived Macaulay in his boyhood, and Wilberforce in his most strenuous days. At Cavendish House, now being pulled down, resided a strange character, Henry Cavendish, a great scientist and astronomer. Before long, these memories of the past will have almost disappeared, together with the plain, unpretentious, but charming old homes that are making way for the inevitable jerry-builder. M. S. B.





View from Common



View from Back.

*Photos: F. M. Holborn.*

HOUSES, NORTH SIDE, CLAPHAM COMMON, LONDON.



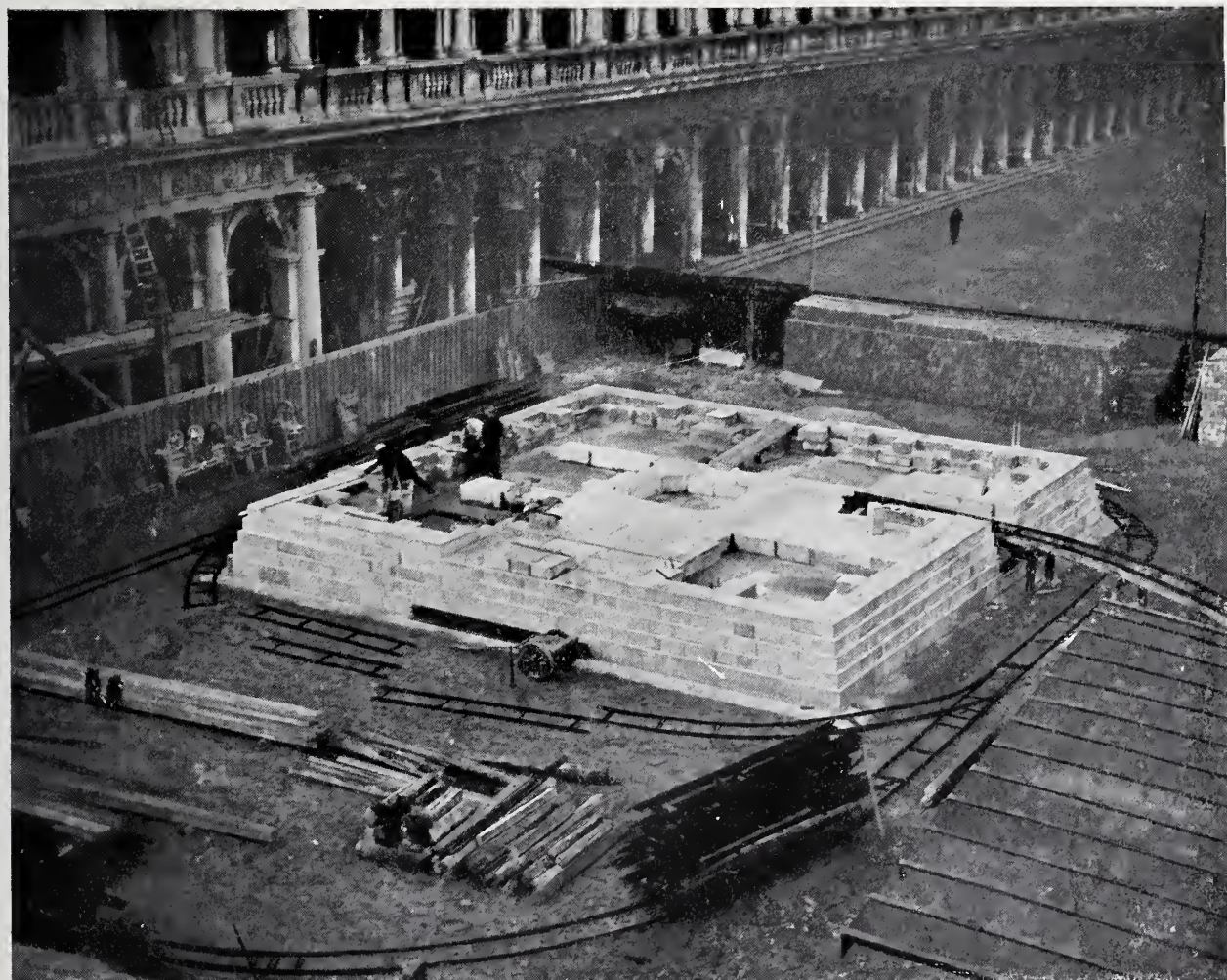
THE interesting view reproduced here shows very clearly the progress to June of the rebuilding of the Tower of Venice. For the superstructure the bricks are made from argil or common clay, the dimensions being  $30\frac{1}{2}$  c. long, 15 c. wide, and 7 c. thick, or about  $12\frac{1}{2}$  in. by  $5\frac{3}{4}$  in. by  $2\frac{3}{4}$  in. The clay is kneaded mechanically, and the bricks are hand-moulded, the fuel for firing being wood. It is estimated that a million and a half of these bricks will be required for the new structure, of which some 17,000 have already been delivered. As in the old structure, there will be two walls with staircase between; the outer one will be 2 m. thick (about  $6\frac{1}{2}$  feet), the inner one 1 m. 10 c. wide (about  $3\frac{2}{3}$  ft.), the staircase width is the same as the inner wall. There will be a lift in the centre of the tower. It is expected that the Campanile will be finished in three years. Signor Doughi is the architect.

\* \* \* \* \*

THERE are three or four buildings which never lose their interest, and of these the Palace of Westminster is one. Both in design and detail

it has probably been more criticised than any building raised since the completion of St. Paul's. But the storm of words subsided long ago, and it is not our wish to revive it. So vast a structure, however, can never be considered entirely "finished"; its great scheme of decoration by paintings and mosaic pictures remains uncompleted. Externally, one of the most singular architectural effects in Europe has been produced by the removal of the Royal Courts, a "sunk garden" or fosse now flanking the vast Hall, with the figure of Cromwell rising weirdly from its depths. The usual modern entrance for the great numbers who have business there is by St. Stephen's Porch. Thence across the upper part of Westminster Hall we pass through St. Stephen's Hall, a gallery which, with its fine vaulting and noble windows, its height—intensified perhaps purposely by its narrowness—and its beautiful double line of white marble statues, may be considered the gem of the building.

Large panelled spaces under the windows have been left for pictures of events in English history; these for many years were covered with wall-



THE PROGRESS OF THE NEW CAMPANILE AT VENICE.



paper of a dull red; this has lately been changed to pale green, a detail which points apparently to the indefinite postponement of the picture scheme of decoration, a postponement to which attention has been drawn in Parliament more than once by Lord Stanmore. The statues are the best and the best seen in England, the most appropriately placed, and emphasised by an architectural background; they represent men whose careers appeal to Englishmen, and the whole gallery is upon the site of "St. Stephen's Chapel," the old House of Commons. It is worthy of remark that this gallery and much of the building besides is more boldly vaulted and its mouldings and details deeper than in what is popularly called "Tudor." Passing through the swing-doors into the Central Hall or Lobby, we find ourselves standing under a great Gothic octagon superbly vaulted, practically a Gothic dome. Here the statues in a much wider expanse seem a little dwarfed; they are represented in modern costume, presenting the usual difficulties, which culminate in that of Lord Granville, who is in evening dress, a mistake not likely to be repeated. Here, as in most of the neighbouring passages, the stonework was long coated with a brown composition intended to protect it against the destructive waterside climate and the fumes of factory chimneys, influences which have utterly destroyed the six panels painted with scenes from the English poets in the lobby on another floor called the Poets' Hall.

The effect of this coating for many years was to inspire a doubt in the minds of tourists as to the genuineness of the stone construction; it has now been nearly all removed, and the improvement is magical; unfortunately it has in parts been replaced by some particularly staring paint, a modern fault not confined to Westminster. The Central Lobby, surmounted externally by a light Gothic spire, is, when full, almost a microcosm of the British races, and always interesting. Visitors who wait there to speak to "our member" admire the immense and beautiful brass lamp pendent from the "lantern." Let us hope that a fair proportion of them take note of the rich, deeply undercut carved stonework. But how many realise the truth about the vast vaulted roof overhead? Its history is somewhat curious. A good many years ago the office of Chief Commissioner of Works was held by the late Sir Henry Layard, a man with a knowledge of the arts somewhat rare among politicians, and a sympathy for them which is rarer still. To him we owe the idea of covering the interior of the great octagon "dome"—for so it may be described—with mosaic. The effect is magnificent by day, but doubly so at night, when the great lamp beneath it is lighted. Unfortunately the mosaic is not what it professes to be,

but—paper! This, no doubt, was intended by the able and artistic statesman—who had already enriched the national collections with his "winged bulls" from the ruins of Nineveh and revived the beautiful Venetian glass-making at Murano—to show to all the world what mosaic decoration could do at Westminster. Some day it was to be replaced by the genuine article, but no Minister has been found since to propose a grant of public money to carry this out. Surely the matter is one that calls for public attention.

The visitor who retraces his steps will find matter for curious attention inside St. Stephen's Porch, where a screen, nominally Gothic, of wood and glass, has been erected on a little "landing" overhead. It smacks of the tea-shop and might be described as Tudoresque. The zeal of our newest parliamentarians, now always attending in large numbers, has drawn attention to the fact that the Commons chamber, designed seventy years ago, provides seats for only about half the members. There can be little doubt that it will be rebuilt before very long, although Mr. Gladstone always declared that it was quite large enough "for business." It is to be hoped that the present system of lighting may be preserved in the new room. The whole of the central space of the ceiling practically acts as one vast lamp; it consists of panels of slightly tinted glass, behind which is the illuminant; the effect is to flood the House with a soft but brilliant light. A curious question will arise whenever the question be taken in hand. Over the glass panels is a carved oak ceiling of great elaboration. What shall be done with it? Who will adopt this derelict work of art?

JOHN C. PAGET.

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THE law of supply and demand is held to govern all the activities of men, and in accordance with its ruling production is supposed to be stimulated or discouraged. And yet, even in the domain of commerce, the universality of this law has been questioned, and what has been called the "law of surplus" certainly challenges its supremacy, seeing that by its action a healthy balance is destroyed, inasmuch as it submits to the market at an unremunerative price (apart from the reduction in the general cost of large quantities sold at a profit elsewhere) materials for which there was no demand until the fascination of extreme cheapness stimulated desire: a custom which is economically indefensible, except as being a weapon with which to destroy the trade of competing nations. But even if it be assumed that in this case the old formulas have not lost their



power, and that on the whole commercial relations are governed by this law, it must not be supposed to follow that its operation covers all the fields of human activity. People often talk as if the productions of art were governed by it as completely as we are supposing commercial operations and ventures to be; whereas it is precisely by the impossibility of its application to art and its productions that the diametrical opposition between art and commerce becomes most evident. They are, and must always be, subject to different laws, and different motives must be the main-spring of the activity of those who pursue them.

Even in the handicrafts which have no relation to art as generally understood the best workman is he who takes a pride in doing well whatever it is he has to do; who does not watch the clock so that he may leave more to be done the next day on the plea of its not being worth while to commence some fresh portion of the work so near the time of leaving off, but is interested in his job, and would rather stay a little over the regulation time than leave a certain process or portion incomplete—in a word, one who is not afraid of being uncommercial, and sometimes giving overfull value for his wages. And in proportion as the crafts demand more art for their successful prosecution the craftsman's interest in his work should increase.

It is unfortunately necessary for the artist to make a considerable income in these days of luxurious and expensive living. If he be married and has children he has a divided duty—it is plainly imperative for him to feed, clothe, and educate them so that they may commence the battle of life at least as well equipped as he was himself when he started, and he must strain every nerve to compass that end, while he is not worthy of a helpmeet who does not yearn to smooth her path through life in every possible manner; but in proportion as he is permeated by the true artistic instinct will his endeavour be concentrated upon the doing of his work as well as he knows how, and the question of whether it will "pay" or not will fade into the background. But with the commercial spirit this question is of the very first importance, and the ideal merchant will always drop an unprofitable undertaking as soon as he finds that it is so, unless he believes that perseverance may turn failure into great success in time. And the existence or the absence of this feeling constitutes an unfailing touchstone whereby the artist may be divined. I do not assert with Sir Joshua Reynolds that genius is merely an infinite capacity for taking pains, but it appears to me evident that the true artist, of whatever kind, face to face with his work can have but one

thought, viz. how best to realise his intention, his conception, his vision: which he will continue to labour at without considering the cost, till he has either attained or despaired of attaining his end; for success does not always crown even the most determined and single-hearted endeavour. And in proportion to the amount of determination shown by the craftsman to do the best he knows is his rank in the hierarchy of art. The sculptor who destroys his statue or bust because he cannot realise his ideal, the painter who scrapes out his day's work because colour or technique misses the expression of his intention, the writer who spends hours in the search for the exact words to render the shade of meaning or sequence of sounds which he feels is demanded, are all artists. The men who say, lazily, "This will do," relying upon the market demand absorbing their productions, are not artists, but commercial men, no matter how much distinction they may have gained in the opinion of the multitude.

An exception to the strict application of the rule must be made in the case of those who are not absolute masters of their productions except for the necessary compliance with the conditions of the manipulation of material. Such artists as architects or decorative designers are often hampered by the requirements of their clients or employers, and thus prevented from producing their ideal best; but they must be contented to accept the requirements of the client as one branch of their limitations, and may still, within those limitations, work with the true artistic spirit, giving the best that is in them, careless before whom they cast their pearls. After all, the person for whom the work is done is not the only one who will see it; and though it may go against the grain to set before the unappreciative that which has cost so much care and drained so much life from its creator, the artist will always remember that art is greater than the individual, and may warm his heart in the glow of the sacrificial fire fed with his hopes and aspirations, from which the myrrh of self-sacrifice and the frankincense of imagination are borne aloft like wreaths of costly incense smoke to the eternal homeland of those who have failed nobly, where achievement ranks below endeavour.

F. HAMILTON JACKSON.

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OWING to great pressure during the International Congress of Architects the contribution of "The Practical Exemplar" could not be completed in time for this issue. The series will be continued next month.



# A Sketch of Irish Ecclesiastical Architecture.

## VI.—IRISH ROMANESQUE.—PART I.

WE now come to another vexed question in the history of Irish Architecture. There is a great deal of work there bearing a more or less close resemblance to Norman Architecture. But it is contended that much of this at least is independent of and anterior to similar examples in Normandy and England. This theory is founded on the authority of Dr. George Petrie. In his *Ecclesiastical Architecture of Ireland*, speaking of these ornamented churches, he says:—

This is, however, a portion of my subject which I confess myself unable to illustrate as satisfactorily as I could wish, because the historical evidences are too generally wanting, which would give certainty to the investigation. In the absence of such evidences, I can only draw conjectural conclusions from a comparison of characteristic architectural ornaments, found in them, with those found in churches in England and elsewhere, the ages of which have been determined; and even such conclusions must be drawn with timidity, till the question is finally settled, whether the ornaments, generally supposed to be characteristics of Anglo-Norman architecture, had not been used in England and other countries in times anterior to the Norman Conquest. One point, at least, I trust I can determine with certainty, namely, that the Irish, anterior to the eleventh century, not only built decorated churches, but also used some of the ornaments, now generally supposed to be characteristic features of the churches erected in England by the Anglo-Normans (p. 197).

This contention Dr. Petrie supports by a variety of arguments, and in particular by finding a possible origin for these forms of decoration (as used, for instance, in the doorways of the Round Towers at Kildare and Timahoe) in late Roman or Eastern work—referring to the chevron as an ornament of arches in a Syrian MS. of 586, on an early arch in Syria, and in the palace of Diocletian at Spalatro; the pediment over the semi-circular-headed doorway of a temple on a coin of 301 A.D.; lozenge-panelling enriched with rosettes in fragments of Roman Architecture at Poitiers; and heads on capitals in the Syrian MS. just mentioned: all these occur on one or other of the doorways in the above-named Round Towers. He points to the close resemblance between certain ornaments found in Irish Romanesque work, and those used in MSS., on reliquaries, stone crosses, and tombstones, dating from a time long before the Norman Conquest of England, and contends that the work in the churches “must, in some instances, be cotemporaneous with those monuments” (pp. 232, 233). He sees differences of im-

portance in the carving on Irish buildings which are certainly later than the development of Norman Architecture in Normandy and England from other Irish Romanesque work, to which he accordingly assigns an earlier date. Finally, the whole theory is supported by an attempt to assign, upon historical evidence, early dates to certain decorated Irish buildings of Romanesque character.

As regards Petrie's general style of argument, it shows much candour and a desire to avoid dogmatism; if his theory is incorrect, he says, the evidences adduced and their discussion “must equally tend to the discovery of truth as if they had been themselves incontrovertible” (p. 240). At the same time one cannot help feeling that the reasoning is often not really close or cogent, and that what is plainly a hypothesis (perhaps with little or no sure foundation) is sometimes, a few pages later on, treated as something like a proved fact. It is also very evident (as, for instance, from his words already quoted) that the determination of dates in architecture generally had not, in 1845, been worked out far enough to give an inquirer into one part of it a solid foundation to build upon; he was still in the period when Norman buildings were commonly described as “Saxon.”

The uncertain nature of the evidence from Irish masonry has been already discussed. As to the derivation of many among the ornaments used in Irish Romanesque work from late Roman or Eastern buildings, this is equally allowed as regards developed Norman architecture,<sup>46</sup> and Ireland is not singular in employing the ornaments named. The pediment over a round-headed doorway is found not only at Kildare and elsewhere in Ireland, as at Freshford and Clonfert, but in England—for instance, at Glastonbury, and at St. Margaret's-at-Cliffe, in Kent; it is no doubt of classical origin. Again, rosettes not unlike those at Kildare—and at Kilmalkedar—are found in England, for instance, on the font at New Shoreham Church, though there they are in triangles (or halved lozenges), as they are also above the doorway at Clonfert. As to the use of heads upon capitals (or above the shafts of pillars) these are to be found at Castle Rising, in Norfolk, and at Old Shoreham. The chevron was certainly a common pattern in various lands at very early periods; it is found in ancient Egypt, as well as in Roman work so far back at least as the third cen-

<sup>46</sup> The influence upon Europe at this period of such work as is found, for instance, in Central Syria is probably in great measure due to the Crusades. See Viollet-le-Duc, *Dictionnaire de l'Architecture Française*, Vol. VIII., pp. 175 and 182, and Parker, *Introduction to Gothic Architecture*, p. 92.





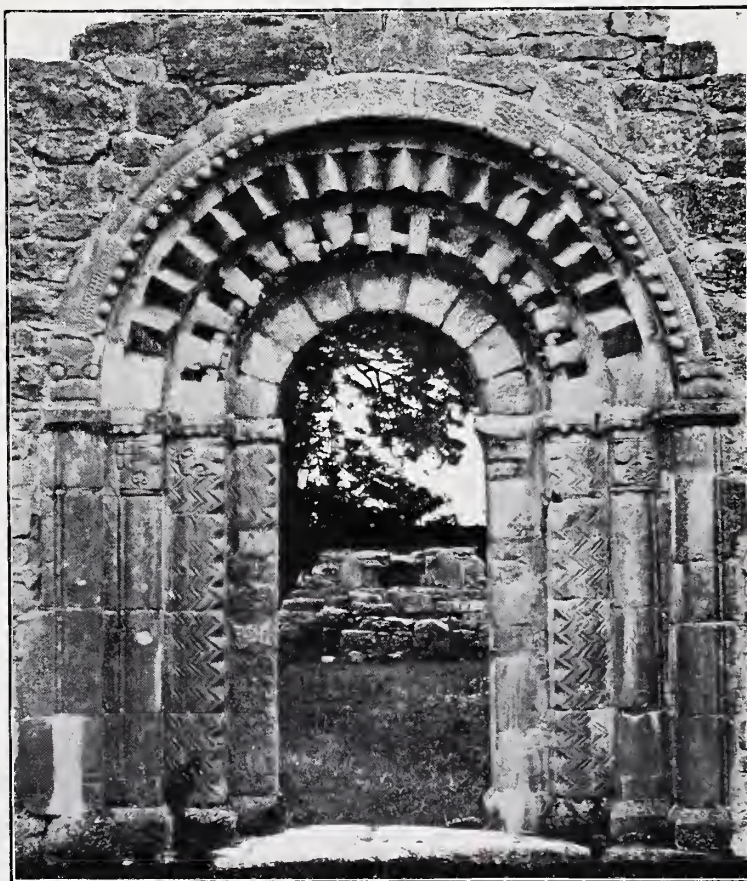
WINDOW TO CROFT OF LARGER CHURCH, RAHAN.

tury A.D.; and we have seen that it is used in Ireland in the Book of Kells and even at New Grange, as well as on gold ornaments believed to be much older still. But the special fondness for its use in stone-carving, making it, both in England and in Ireland, at a stage or stages in their architecture, the predominant ornamentation, and the general resemblance of the forms in which it was employed in Ireland to those found in England and in Normandy would, if a mere coincidence, be a very startling one.

The distinction in style which Dr. Petrie draws between the ornamented Irish churches which he considers independent of Norman influence and those which he thinks to be indebted to it appears to be very difficult to maintain. The human heads, sometimes of a grotesque kind, seemed to him to be of early date as occurring on capitals in the doorway of the Round Tower at Timahoe, and beneath the chancel arch of St. Saviour's, Glendalough, and of the larger church at Rahan; but something like them is found similarly placed at Tuam, in work which he attributes, no doubt correctly, to a date not earlier than A.D. 1128. The arch in the Cathedral at Killaloe, supposed to belong to the tomb of a king who died in 1123, which is of unmistakably Norman character, combines this with a sort of subordinate lacework showing Irish spiral patterns.

But of course any considerations of analogy and probability, however strong, could not outweigh distinct proof that certain buildings in Ireland, showing apparently some of the characteristics of

later Norman Architecture, are—in their present state—really older than the appearance of these in Normandy and England (though in this case we should, I think, have to derive developed Norman Architecture from Ireland). This proof Petrie thought that he had found, particularly in the case of the doorway in the Round Tower at Kildare. That Tower is described by "Gerald the Welshman," writing in 1188 (he was in Ireland in 1184), in terms which show that it was then thought to be of great antiquity. But is the doorway newer than the Tower? Though Petrie puts this aside as a "gratuitous assumption," Brash gives a decided opinion that it "has been inserted in the tower at a later period," and I do not think that many of those who examine the doorway for themselves will doubt that this view is at least by far the more probable.<sup>47</sup> That is enough to rule out this piece of historical evidence. The proofs of date which Petrie brings forward for other buildings (I leave out for the present the chancel of St. Caimin's Church on Inisceiltra) are not cogent, turning as they do upon the presumption that the rebuilding of a church would certainly have been mentioned if it had occurred. We have spoken of this argument before; it has led to St. Stephen's, at Caen, being assigned, more or less as it stands, to about the year 1060, and to other impossible conclusions, enshrined in local guide books, about many English churches. It is on this reasoning that Petrie



WEST DOORWAY, NUNS' CHURCH, CLONMACNOISF.

<sup>47</sup> *Ecclesiastical Architecture of Ireland*, pp. 35, 36. I regret that on account of its position and the worn state of the carving it does not lend itself to photography.



assigns the chancel of the larger church at Rahan, in spite of the window highly ornamented with chevron and bead, to the eighth century, and that of *Teampull Finghin* at Clonmacnoise to a date before 1015, when a church of that name is mentioned. The building last named shows an elaborate arch which is to all appearance of Norman character,<sup>48</sup> and one of the pillars on which this rests has capitals scalloped in such a way as to resemble an 'Irish crown.' There are capitals almost exactly like it in the Norman doorway at Tortington, in Sussex, as well as at New Shoreham, and another very similar one at Wimborne Minster. Not that Irish Romanesque is an exact copy of a foreign style; flat pilasters, for instance, are often used instead of rounded pillars, and there is frequently no proper capital, but only what seems like a fragment of entablature. However, where real capitals do occur, these are very frequently such as can be more or less paralleled from Norman work in England, or at least they seem to show an imitation of this—as in Cormac's Chapel at Cashel. It appears that very clear evidence indeed would be required to prove the independence of this ornamented Irish Architecture, "so like Norman." And yet all the buildings (so far as I can discover) in the style called Irish Romanesque whose date can—within narrow limits of time—be determined with certainty, fall in the twelfth century. Thus Cormac's Chapel was consecrated, in all probability as it stands, in 1134; the Nuns' Church at Clonmacnoise was built in or about 1168; and Jerpoint Abbey was founded in 1180. All these show a marked relationship to Norman Architecture, while all have in varying degrees distinct Irish peculiarities.

The theory as to the early date of some Irish Romanesque churches advanced by Dr. Petrie in 1845<sup>49</sup> is still firmly held by many in Ireland—sometimes without the limitations and reservations which he then expressed—and is constantly treated in guide-books as proved fact. But for this it would hardly have been necessary to deal with its original form at any length, for it was at least greatly modified later on by its author, and the change of view was, as one would expect from him, candidly stated—to adopt his own words, used of some English antiquarians, "he does not love the glory of his country better than truth." In a letter written to Lord Dunraven in 1864, referring to the dates assigned by Parker to Romanesque buildings at Glendalough, Dr. Petrie says:—

You may remember that in the very last conversation I had the pleasure of holding with you I told you that in many instances my opinions respecting the ages of *ornamented* churches were changed or modified; and as the most striking instance of such change I distinctly named the ornamented buildings of Glendalough. The truth is that very many years ago I had come to the conclusion that my speculations—for they were only such—as to the age of some of these buildings were not sustainable;

that there were in them—however mixed with ornaments of a purely Irish character—others so decidedly Norman and un-Irish that it would be an utter folly to uphold any longer the conjecture that they might be of an ante-Norman period. But I confess what removed all doubt upon the subject from my mind was a passage which I met with some years ago in reading the life of St. Laurence O'Toole in Messingham's *Florilegium*. . . how the good abbot spent the great riches of the abbey and a treasure deposited with him by his father, "*pauperibus nutriendis et ecclesiis aedificandis.*" These two words were as a perfect flood of light poured into my mind.<sup>50</sup>

He then mentions the particular buildings at Glendalough about whose age his opinion was changed. The biographer, indeed, adds that—

it is however by no means to be inferred that Petrie's views as to the existence of a decorated church architecture in Ireland in times previous to the Norman period had undergone any great change.

But, however this may be, Petrie's change of view, as definitely stated by himself, tears a great gap out of his argument. For the chancel of the Cathedral, the 'Priest's House,' and the chancel arch of St. Saviour's, all at Glendalough, and expressly attributed to St. Laurence O'Toole in the letter, are in the *Ecclesiastical Architecture* classed among the pre-Norman Irish Romanesque buildings. This plainly suggests that the distinction made by Petrie between the two styles of building does not in fact exist. If St. Saviour's chancel arch and the other buildings showing a mixture of Norman with Irish decoration (zigzag and scollop combined with a sort of elaborate key-pattern, spiral ornaments, and heads with hair interlaced, and so on) are of twelfth-century date, there seems to be no reason why other work which shows a similar combination in varying proportions (for instance, at Timahoe and at Rahan) should not also be indebted to Norman Architecture. And this intermixture prevails, I believe, in all—or almost all—the Irish Romanesque churches. The words which Petrie uses in the letter to describe some of these buildings appear to form an excellent description of the style generally.

Owing perhaps to Dr. Petrie's change of view, a modified theory has more recently been advocated by Miss Stokes. In the appendix to Lord Dunraven's *Notes on Irish Architecture* (Vol. II., p. 189), speaking of the chancel of St. Caimin's, Iniscealtra, which Dr. Petrie thought to have been built by King Brian Borumha about or soon after A.D. 1000 (he was killed at Clontarf in 1014), she says: "Then it was that the Romanesque wave passed direct from Normandy into Ireland." This modification appears to be still less credible than the original theory. The early dates attributed to elaborate work in some churches of Normandy are now generally thought to be mistaken. And with early Norman Architecture Irish Romanesque does not appear to have much affinity—it is rather the later, decorated work that it resembles. Plainly, a

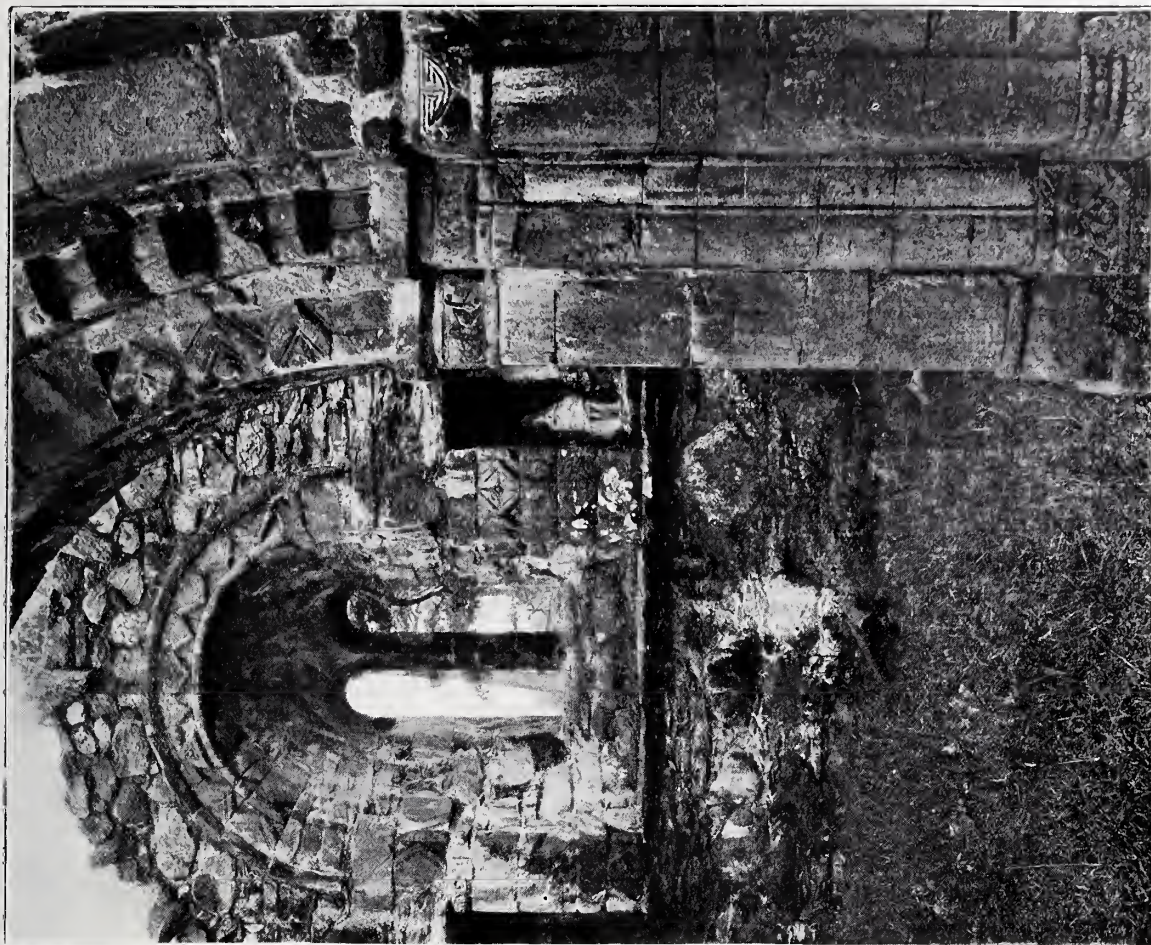
<sup>48</sup> Except the innermost order, which probably dates from a 'restoration' in the seventeenth century.

<sup>49</sup> Brash accepts the theory in outline, but he does not appear really to add anything towards proving it, though he shows—what would now hardly be disputed by anyone—that churches

having apparently Norman characteristics were built in Ireland before the English invasion.

<sup>50</sup> William Stokes, *The Life and Labours in Art and Archaeology of George Petrie*, p. 182. St. Laurence O'Toole became Archbishop of Dublin in 1162.





CHANCEL ARCH AND EAST WINDOW OF ST. SAVIOUR'S, GLENDALOUGH.



CHANCEL ARCH, ST. CAIMIN'S INISCEALT'RA (LOOKING S.W.).



"wave" passing over to Ireland some time before such work appeared in Normandy cannot have carried it to the island.

The work of St. Caimin's chancel could perhaps in any case hardly bear the weight of the whole argument; but it will be right to take into consideration this curious and interesting building. It is of ashlar—very unlike the masonry of the nave<sup>51</sup>—and had a row of beads below the cornice outside, somewhat as at Teampull-na-Hoe, Ardferf, which appears to be a distinctly Norman building. So far there is nothing strange—unless it be the supposed date—but the pillars of the chancel arch (which is of three plain square orders) are of a very unusual kind. The carving of the capitals, or of the entablature occupying their place, seems to be adapted from the Egg and Tongue ornament, and may have been imitated directly from classical work; but this decoration is also used on a church at Alet, in the south of France, believed to be of the eleventh century. However, the interval between the 'eggs' is filled in with ornament which takes the form of grotesque human heads.<sup>52</sup> As



CHANCEL ARCH OF TEAMPULL  
FINGHIN, CLONMACNOISE.



WEST DOORWAY, CLONKEEN CHURCH.

to St. Caimin's Church, Keating writes (quoting, it is supposed, from an ancient life of Brian Borumha, written by MacLiag, his secretary): "It is he also that caused the great church of *Cill Dalua* [Killaloe]<sup>53</sup> to be built, and the church of *Inis Cealltrach*, and repaired the high steeple of *Tuaim Greine*" [Tomgraney]. And the Rev. James Graves, in a letter, wrote of it:—

This chancel arch is in my opinion decidedly earlier work than the dated example of Cormac's Chapel, I should say fully a century earlier; that it is the work inserted by King Brian, I have no doubt. It presents none of the profuse surface ornament of twelfth-century work, and the square-cut plain orders of the arch appear to be very early work, as well as the capitals.<sup>54</sup>

Now "square-cut plain orders" are to be found in twelfth-century work in England—I may instance the arches under the tower at New Shoreham—and they are found in the late Romanesque arch at Inismain, and in a pointed doorway at Ballintober Abbey, founded in 1216. The same type of capital is found again in the doorway at Clonkeen, combined with chevron

<sup>51</sup> See Article II.

<sup>52</sup> On the inner sides, at all events—the western face is much worn by weather. These pillars are not very correctly copied in Petrie's *Ecclesiastical Architecture*.

<sup>53</sup> Not, of course, the present Cathedral.

<sup>54</sup> Dunraven, *Notes on Irish Architecture*, Vol. II., p. 56.





EAST END OF "PRIEST'S HOUSE," GLENDALOUGH, FROM THE OUTSIDE.

on the arch above, and chevron edged with beads on the label as well as on the shaft below. And the bases of the columns at St. Caimin's, with their bead ornament, are of a better and more finished design than many Irish Romanesque bases—they are a good deal like one of the bases at St. Saviour's, Glendalough. As to the historical record, it is of an elusive character. No church in the country was more exposed to ruin from the Danes than that on the Holy Island in Lough Derg, so long as they swept the Shannon with their fleets. Brian may have built the present nave; he may have repaired it more or less as it now stands, retaining early features in the building<sup>55</sup>; or he may have added to it a chancel which later on was superseded; that he built the present chancel is plainly by no means the only possible meaning of the account, if, as is probable, we have it correctly given in our secondary authorities.

The contention that Norman ornaments, as well as the general inspiration to decorate parts of the churches with carving (as Irishmen had long been accustomed to decorate their High Crosses), came to Ireland from Normandy, and not from England, is of course hard to disprove. There was much exchange of ideas between different countries in the Middle Ages: travellers, if

they did not always carry sketch-books (like Wilars de Honecourt in the thirteenth century<sup>56</sup>), had at least eyes and memories. But there appears to be no reason for preferring this connection to the more obvious one with England. Bristol did a great trade with Ireland; Danish sees, such as Dublin and Limerick, were more or less dependent upon the English Church; St. Malachy, the great introducer of foreign ecclesiastical ways into Ireland, was in touch not only with Clairvaux and with Rome but with England, partly through the Bishop of Lismore, who had been a monk at Winchester; and Cormac, King of Munster (who just afterwards built the chapel at Cashel), knew both these men when he took refuge at Lismore. New ideas of architectural ornament would be most naturally derived (in the main, at all events) from that neighbouring country with which Ireland had, even before Strongbow's invasion, a very close connection.

ARTHUR C. CHAMPNEYS.

[The illustrations of the Nuns' Church, Clonmacnoise, and of Clonkeen Church, are from photographs by Langfier, Limited; the rest are from photographs taken by the writer, developed and printed by Messrs. Seaman, Ilkeston.]

(To be continued.)

<sup>55</sup> Brash says, "The terms 'erect' and 'build' are frequently used in our annals for 'repair' and 're-edify.'—*Ecclesiastical Architecture of Ireland*, p. 18.

<sup>56</sup> See *Facsimile of the Sketchbook of Wilars de Honecourt*, edited by Rev. R. Willis.





VIEW OF THE PROPOSED DRILL GROUND FROM THE HEIGHTS, LOOKING NORTH-EAST.



# The City Beautiful—San Francisco Rebuilt.—II.

## *Conclusion.*

WE now come to Mr. Burnham's analysis of the third element of a modern city, that of the residential portion, subdivided into urban, suburban, and country districts. His remarks upon this theme appertain more or less closely to nearly all modern cities:—

"The residential districts develop as necessity demands; the pioneers or small householders retiring in many districts before the advance of better improvements. The most desirable region should be studied in anticipation for the right size of block, width of street and general disposition, preservation of view points, park areas, etc., in order that once settled into place the best districts may be valuable to all, and initial errors will not have to be rectified at heavy cost. A great charm might be lent to certain quarters, particularly the less expensive and flatter sections of the city, by the elimination of some of the streets in the monotonous system of blocks, and substitution of a chain of park-like squares, formed in a measure by the unused or misused backyard areas. The isolated square of the Old World, unless maintained by wealthy residents, is a quiet, almost desolate, spot—seldom feeling the throb of life. The chain is suggested to obviate this, and induce a current of life to flow agreeably from end to end, to the exclusion of unnecessary vehicles, thus leaving the main traffic to the intermediary streets. In case the houses front on the squares a new system might be evolved. Thus the cars and service might be thrown on the streets (narrowed), whilst the park chains would become public avenues of beautiful planting, in which one could walk with great comfort, and where children could play, free from danger of traffic. Such a system would provide well for children who seldom know any life except that upon the streets of the city, and would be the natural approach or connecting link between the larger parks and the playgrounds. As the city grows, certain isolated places will eventually become borough centres, and these should reserve large commons on which may face the civic buildings."

Such, in brief, are Mr. Burnham's presentation and analysis of the city's needs, and his admirable methods of solution of a problem exceedingly difficult and complex. Particularly to be praised are his fine appreciation of the æsthetic opportunities presented, his intimate knowledge of the peculiar characteristics of a people so fond of beauty, display, and amusement as the San

Franciscans, and his use of forms adapted to the picturesque topography, the majestic views and equable climate of the City of the Argonauts. In no case was either the utilitarian or the artistic ruthlessly sacrificed the one to the other, but a skilful compromise effected between them without hindrance or obstruction to metropolitan progress. In places where the architect's imagination was unfettered by existing confines or structures, he created beautiful and monumental schemes of ornamentation that were destined to make San Francisco the most magnificent of cities, both by Nature and Art. Some idea of these great projects may be gained from the accompanying sketches and plans which it will be interesting to describe more fully in detail. In the projected plan of the city it is arranged that the existent rectangular blocks are to be intersected in every direction by the new boulevards and streets, thus giving elegant perspectives and destroying the monotony of right angles as well as facilitating intercommunication. One of the most distinctive features was the great Outer Boulevard completely engirdling the town for thirty miles with broad driveways and promenades through every distinctive part of the city, displaying its varied social and industrial life as well as its great natural beauty of forest, park, hill, and shore. In many places this fine road would recall the famous *Corniche* driveway of the Riviera, which runs from Nice to beyond Mentone. A project which had been discussed for years was the extension of the "Pan-handle" of Golden Gate Park, the greatest garden pleasure-ground in the world. This was to be brought in a direct line to the vast concourse at the Civic Centre, whole blocks of existing houses to be removed for the purpose. It involved much ingenious study to procure proper grades for driving and to permit the crossing of streets, some of which, as shown, were to be carried over, and some under, the tree-lined drives. From the great Central Place the four most vital thoroughfares were to radiate—first, Market Street, extending on the east to the ferries and on the west around Twin Peaks to the ocean; the second, the "Pan-handle" to Golden Gate Park and the Beach; the third, Van Ness Avenue to the north; the fourth, a prolongation of the "Pan-handle" south of Market Street to the Bay, bringing an important quarter into close relation with the civic heart. It was proposed to widen many of the existing streets. In relation to the various new public concourses and round points, the



designs of private structures were to contribute to the general effect. In his report, Mr. Burnham said: "The architecture of the Civic Centre must be vigorous if it is to hold its own and dominate the exaggerated skyline of its surroundings. The climate of San Francisco admits of a bold style of architecture, for the atmosphere softens profiles and silhouettes. The column should be freely used as the governing *motif*. On gore lots facing public squares, where practicable, a treatment might be adopted similar to the well-known Fontaine Saint-Michel of Paris.

"The important part which adequate park spaces now play in civic life is generally recognised. In the more contracted quarters such places to be serviceable would have to be more than mere breathing places with flowers, trees, and perhaps a fountain. They must afford gymnasia, libraries, baths, refectories, club-rooms, and halls for meetings and theatricals. They must be useful day and evening, summer and winter. The public must receive a continuous and ample return upon its investment in health, freedom, and joy."<sup>1</sup> A typical plan of one of these institutions is given.

Swimming pools for both sexes, wading ponds and sand-pits for children, and athletic apparatus, were designed for these places in various neighbourhoods. On hill-top parks terraces were planned for wide views of the city—these broad outlooks exercising a twofold educational purpose on the young. This problem of providing new parks for the constantly-growing population (estimated by the last school-census to be over a half-million) was skilfully solved by making use of great open tracts, ill-adapted for building owing to steepness or difficulty of drainage. These additional parks would act as wind-brakes, and likewise serve to confine great conflagrations within certain limits by dividing the city into compartments like a ship. In a city like San Francisco, where each hill affords a view of the others, it was necessary to study the effect of these parks from afar. A natural and romantic treatment was largely favoured with a certain formal disposition of the planting. In the smaller parks a strictly formal arrangement would act as a valuable lesson in system and orderliness to the masses. The architecture of park buildings was limited to the chastest simplicity.

In the populous Mission District a muddy, neglected stream known as Islais Creek had long been an eyesore to the public. It was intended to convert the ugly region about this stream into a narrow park-way by reclaiming a strip of the occupied land along either bank. Drive-ways, as

shown on the sketch, were to run on both sides, occasionally bridging the creek; the whole to compose a limited but charming landscape.

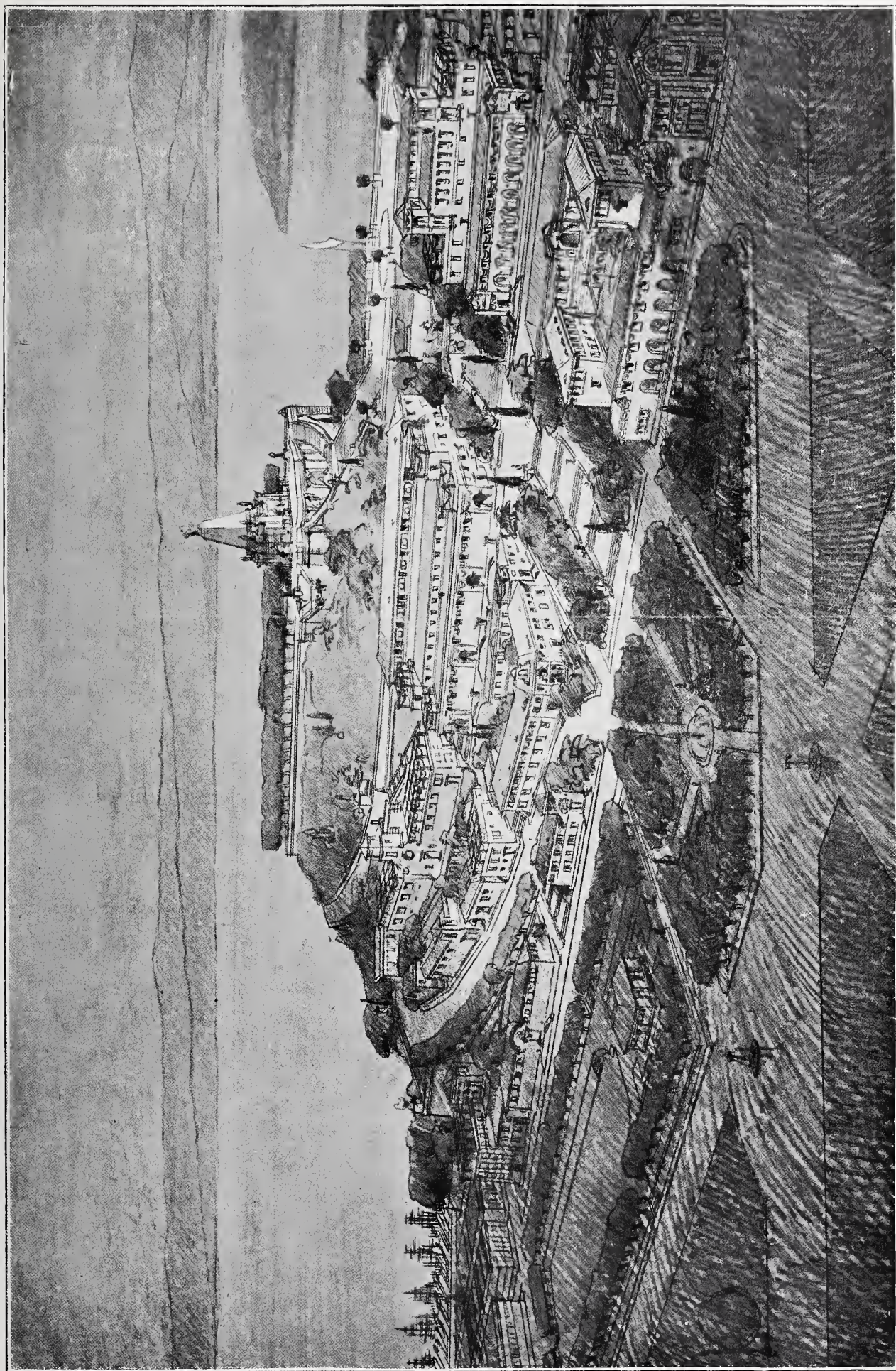
The many hills of San Francisco which give to it a remarkably picturesque and romantic character, and which are often of great height, called for special treatment. Unlike other cities, it is these elevations and not the highest buildings that here determine the skyline. From the heart of a densely peopled district, and looming above the docks and the ships, rises the historic Telegraph Hill, disfigured before the fire with mean wooden dwellings. It was proposed to leave the hill intact as to mass, but to crown it with a park and some monument symbolical of a phase of the city's growth, suggested by the imposing use made of similar heights in Genoa and Budapest. All the steep slopes of Russian and Nob Hills and Pacific Heights, whose straight streets proved so great an impediment to traffic, were to be encircled by winding contour roadways.

The Twin Peaks, two tall, bare, and conical hills which lie directly in line with Market Street and are visible from nearly all parts, formed the focal point of Mr. Burnham's ideal conceptions for the beautifying of San Francisco. They were, in fact, to bear a relation to the city analogous to that of the Acropolis to Athens, and were further to resemble the sacred Greek hill, in that impressive edifices devoted to noble pursuits were to be built upon their various levels. To the west of these hills, towards the ocean, the virgin public lands of the city lie undisturbed in their beauty of forest, meadow, and flowered glen. The whole afforded unparalleled opportunities for forming a wonderful composition by means of architectural enrichment and landscape gardening. A fitting approach from Market Street to the base of these hills was designed by an imposing gradation of terraces, esplanades, and inclines, balanced by fountains and trees. The Peaks were to form the centre for public fêtes, at which the beauties of city and county might be unrolled before the citizens. To the west would run plunging vistas into the valleys with their lakes and the immensity of the ocean for a background, then the terraces, rich with verdure and flowers and delicate accentuations of appropriate structures. To the east, citywards, would open the noble perspectives of avenues converging to the Peaks, the marble esplanades and fountains, the peaceful bay, and the crescent of hill-top parks, the latter to be outlined in their undulations at night by a subtle scheme of illumination.

In a natural hollow, 800 feet above sea-level, on the northern flanks of Twin Peaks, it was proposed to build a vast amphitheatre, commanding a superb

<sup>1</sup> Henry G. Foreman in *The Century Magazine*.





TELEGRAPH HILL, LOOKING EAST, SHOWING SUGGESTED ARCHITECTURAL TREATMENT.



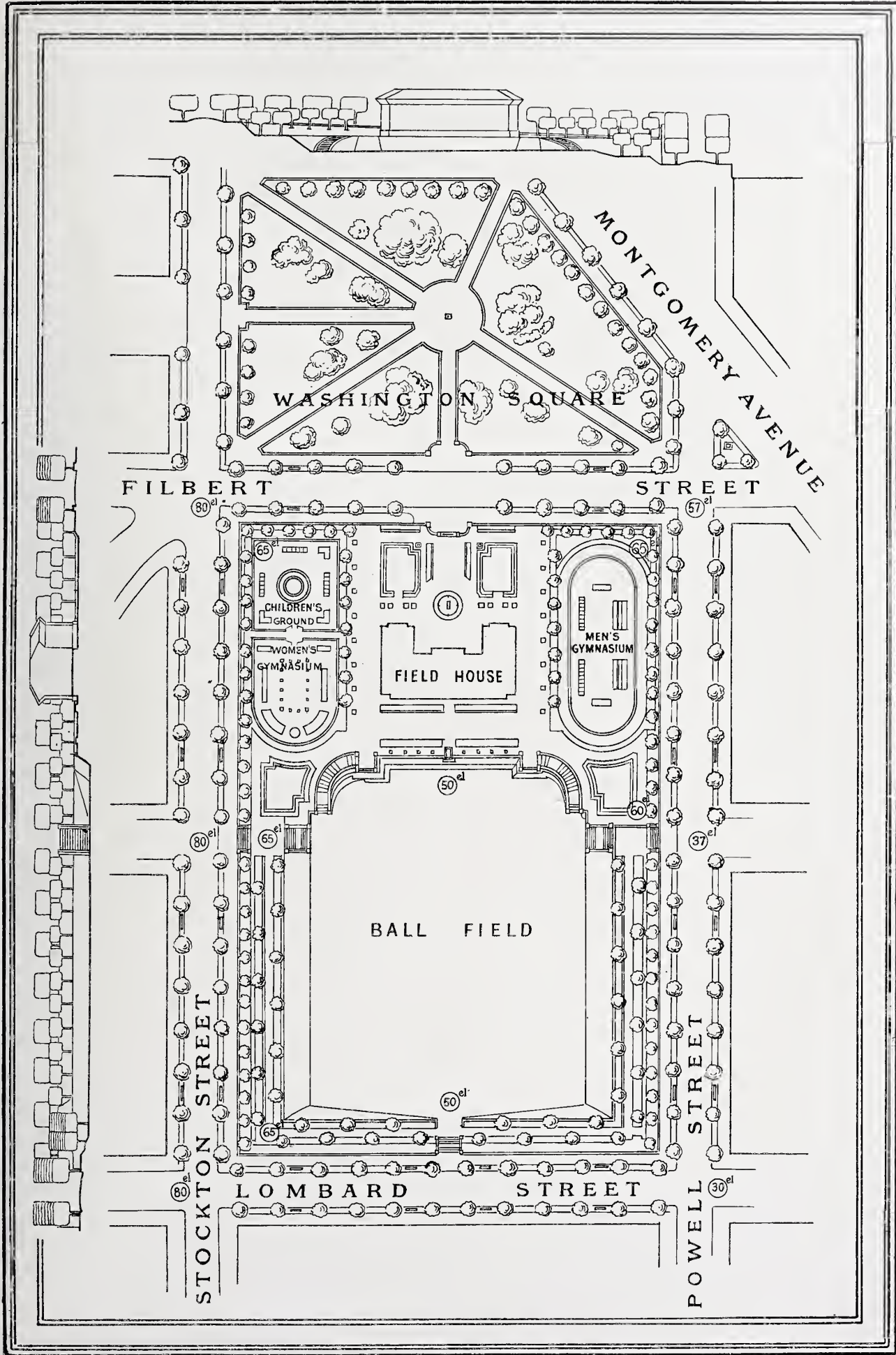
view of the Golden Gate. This was to serve for inter-collegiate football games, Olympian contests, the horse show, and polo matches. It would recall by its location the stadium in the Delphian hills, overlooking the Gulf of Corinth, or the Theatre of Dionysius at the foot of the Acropolis, from which are seen the Piræus and the Ægean Sea. Such a structure, peculiarly adapted to the climate and the tastes of the San Franciscans, had been foreshadowed by the very successful open-air Greek Theatre at the University of California. The unique and individualistic development of art and literature under the fostering Californian skies was to be encouraged in a most splendid yet practical fashion. For the eastern slopes of the Peaks a great academy was designed for the accommodation of men engaged in various intellectual or artistic pursuits. Here, under the constant stimulus of inspiring surroundings, these creators of the beautiful were to enjoy the almost monastic seclusion of this retreat for the benefit of independent study or collaboration. Mr. Burnham's plans include the general administrative headquarters, assembly, reception, lecture, and dining halls, together with the necessary services; then, smaller structures fitted for special work or study, provided with living accommodations and connected with the central group by easy approaches. These buildings were grouped under the three heads of letters, art, and science. It was even thought—and the reason is not a superficial one—that the establishment of a Maternity Home in a similar lovely environment and so close to the city "would be of great moral value."

The crowning glory of this majestic yet essentially useful scheme of elaboration was to be a stately Athenæum of grand proportions erected in the sheltered hills along an axis in line with a valley of the country of the Laguna de la Merced towards the ocean. Some of the greatest works of art in the West were to be placed in this dignified temple, forming a nucleus for all that was worthy. About it was to be a studied system of courts, walks, and colonnaded shelters modelled somewhat after the famous *Pacile* of the Villa Hadrian, which collects the warmth of the sun and affords protection from the wind. The central court, as shown in the accompanying illustration, is the key to the composition, and furnishes an imposing setting for the principal monument. In this spot, which forms the geographical centre of the western metropolis, a colossal figure of San Francisco was to rise in fit symbolisation of the city. This would be visible from every part of the country towards the ocean, and at night a powerful beacon would disclose its presence to the great steamships coming in from the Pacific to

the port of the Golden Gate. The famous military reservation known as the Presidio having increased in importance during late years owing to the acquisition of the Philippine Islands, was likewise made the object of extensive improvements. An immense drill-ground was designed for the regular manœuvres of the army in a location unfolding a peerless view of the Golden Gate.

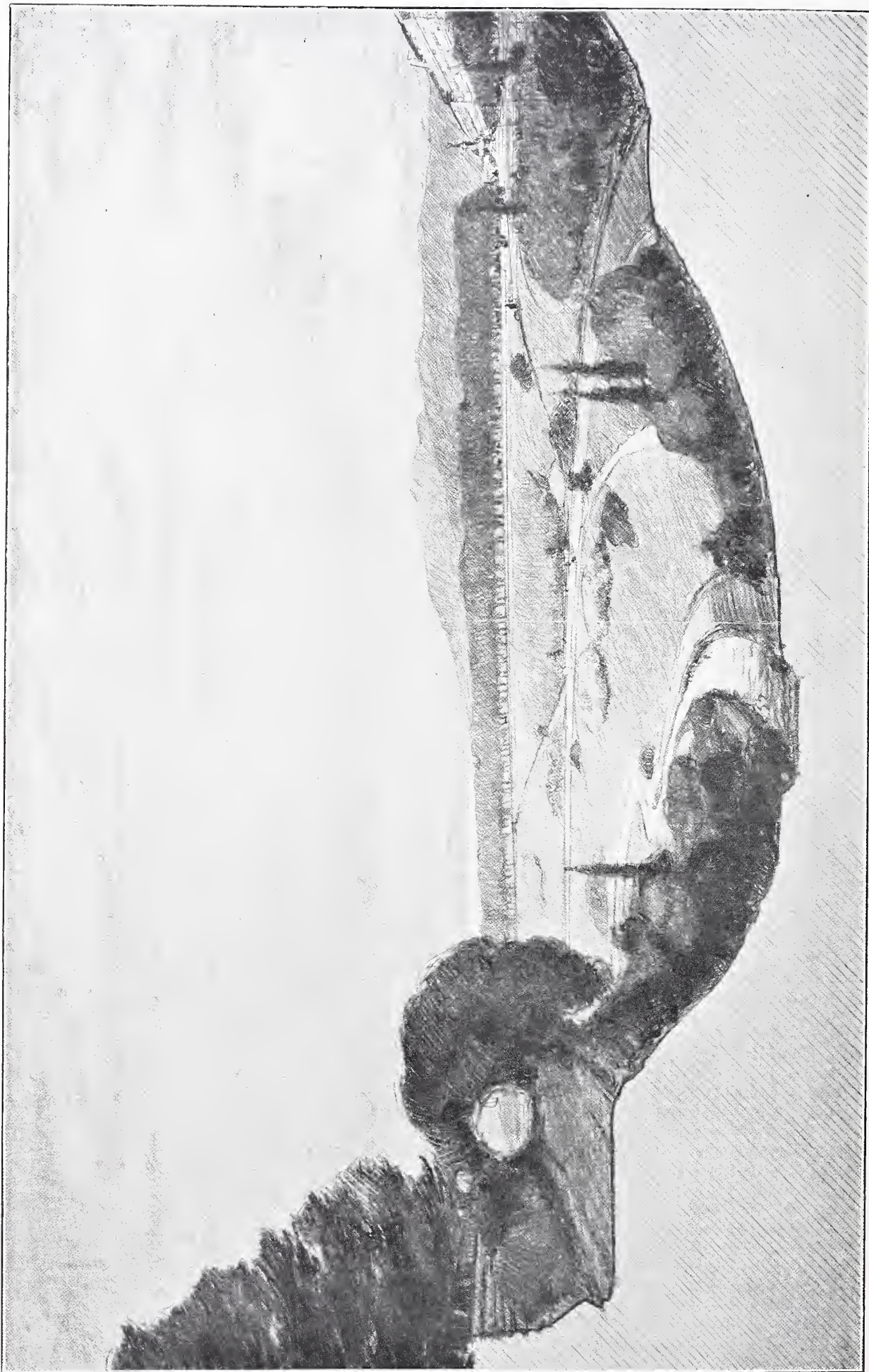
It will be felt that these conceptions were perfected in a spirit particularly classic, with a trend towards the Hellenic, but in entire accordance with certain distinct sympathies and tendencies manifested in the cultural and social life of this lovely and wealthy city. San Francisco possessed the most remarkable architecture of any city in the Union, the domestic portion of it especially being a reflection of temperament and individual expression. While decidedly grotesque in its earlier development, a more refined taste had ultimately prevailed. Despite the clashing of many styles and much that was monstrously "original," it was seen that a peculiar type of essentially Californian architecture was being evolved, a type or style which based its *motifs* upon the details of the early missions built of *adobe* or sun-dried bricks by the Spanish fathers. The red-tile roofs of low pitch, the white expanses of plain walls, the curved gables, iron balconies and grilles, and sparse but delicate clustered ornamentation gracing openings in thick walls were predominant features of this simplified Spanish Renaissance introduced by the Jesuit missionaries. It is a style both romantic and picturesque which, apart from its prototype, was a natural growth developed out of historical and climatic influences. While most of the dwellings were frame structures of elegant and subtle design, equipped with the most modern mechanical appliances, there had of late been many massive private houses erected of brick, marble, or stone. It was but lately that California had opened up her inexhaustible quarries of the finest granite, sandstone, and marble. In the business districts, during the last ten years, many beautiful buildings had been erected on the steel skeleton system, whose supremacy in fire and earthquake resisting qualities has just been so fearfully proved. It was interesting to note the inevitable tendency towards the polychrome treatment of exteriors which cities so favoured by sun and sky usually display. In the grounds of the Leland Stanford University at Palo Alto stood an exquisite chapel brilliant with gold, mural mosaics and frescoes, bronze work, marble and stained glass, the product of the world's most accomplished masters in each art. Though still raw and lacking the mellowing touch of time, it was a thing of radiant





PLAN OF ONE OF THE SMALLER CITY PARK CENTRES.





TYPICAL SECTION OF ISLAIS CREEK PARK.



beauty, an architectural gem like the Taj Mahal. It is now irreparably ruined.

Having described the most essential features of the great project, it will now prove instructive to examine certain lesser details which in their application to municipal welfare must be of extreme interest to the progressive spirits of all large cities. It was strongly urged that an art commission be appointed to regulate all matters pertaining to urban ornamentation. The duties of this commission would be to decide upon questions of appropriate and artistic electric and gas lamps, post boxes, fire-alarm boxes, street-name plates, shop fronts, signs and bill-boards, as well as to exercise a certain authority over domestic frontages in regard to gardens and hedges. Many of the bare porticoes of existing homes, it was suggested, might be beautified by the use of creepers, vines, and roses, which grow so prodigally there as often to cover entire houses. San Francisco, in the residential regions, might easily be converted into a "garden city." One of the essential charms and redeeming features of city life had hitherto been sadly neglected in San Francisco—the planting of trees in the streets. It will be of interest to all who realise how much the general grey monotony of London is relieved and often invested with poetical charm, to quote from the report on this subject:—

"San Franciscans object to trees principally because they shut out the sunlight. But in striving to obtain as much sun as possible, the city has exposed itself to greater evils. The most objectionable features of San Francisco are the wind and the accompanying dust; the planting of trees would in a measure remove both of them. Our streets, exposed to the wind, are chilly and uncomfortable, despite the heat of the sun.

"The protection afforded by trees would make the streets—the sidewalks especially—warmer than they are now. It is probable that much of the objection to trees has arisen from the use of those of too great growth, like the eucalyptus; hence it is necessary that the species be carefully selected. Trees of smaller growth, like the black acacia, the pepper tree, the locust or the palm, might be used. Care must be taken to select the trees best adapted to the different localities. Hedge-like tree-borders to all the wider streets, not made up of scraggy growths, but solid, formal foliage, will add elegance and do away with the effect of dreary stretches of inharmonious architecture. This treatment is strongly recommended. Apart from these practical considerations, no argument is needed to show the beauty imparted to streets by the planting of trees. Their general clothing effect is admirable, particularly in a hilly city, where they soften the harshness of the skyline

on the summits of the hills as seen in perspective. The adornment of the streets by means of shrubs, vines, and flowers would conceal the ugliness of fences and steps, as well as incongruities of façade, and would give uniformity to whole blocks."

The strident inharmony *en masse* of much of the architecture of San Francisco was largely due to the chaotic jumble of various cornice heights in the business districts. It was intended to control this in the future by strict regulations making a uniform cornice height imperative. At the Civic Centre this was fixed at 80 feet.

The material and width of pavements were governed by considerations of the nature and extent of the travel in the particular localities, the wholesale, retail, residence, and suburban districts each requiring a specific kind of pavement. In streets in which there were no tram-lines, additional opportunities were granted for tree-planting and for parterres. The general regulations provided that "the use of statuary in parks should invariably be limited to the squares, round points, and vistas of a formal character, thus contributing to the effect of contrast obtained by the use of the formal with the romantic."

While San Francisco as the centre of a vast state rich in natural resources is destined to become a commercial and distributing centre rather than a manufacturing one, it was nevertheless deemed necessary to make provision against the smoke nuisance to the extent of confining the factories to the southern portions which they until lately occupied—happily situated to the leeward of prevailing winds. The problem of restricting heavy traffic called for a complete system of regulation. The three points of facilitating communication, avoiding congestion, and protecting street surfaces were closely studied.

The location of new hospitals in regions particularly salubrious and sheltered was another question that required considerable attention, for in the intimate complexus of a great commonwealth the sick and the dead require specialised architectural study almost as much as the healthy and the living. In the western part of San Francisco lay the old cemeteries, a constant obstruction to the expansion and circulation of the city's life in that direction. These were to be removed to the slopes of the southern hills near the bay shore. Mr. Burnham's views on an ideal cemetery are thus set forth by him:—

"In planning a city of the dead, attention should be given to orderly arrangement. The haphazard appearance so characteristic of most cemeteries might well be obviated by making parks of them. In the portion devoted to burial purposes a minimum space should be allotted to each grave. In the centre of this section, composed



architecturally, would be the chapel or crematorium, the visitor approaching the burial space through the parkland and finally reaching the chapel. This arrangement leaves the greater part of the cemetery available for fine promenades of cypress and pine, suggesting by their natural beauty thoughts of consolation and peace. There is no reason why a cemetery should be made a place of gloomy meditation. Such, however, it usually is and must be, unless it is treated in such a way as to remove the over-emphasis of the actual graves."

In illustration of the desire to combine the useful with the beautiful, the reservoirs for the water-supply of the city were in themselves to be made monumental features of permanent embellishment. The necessary aeration of the water after it left the aqueducts would be accomplished by means of cascades, a *château d'eau*, from the hills to the different levels corresponding in elevation with the heights to be supplied.

The summary here given of this elaborate and painstaking solution of a gigantic problem must needs be of the greater interest and value since the recent destruction of the city of the Golden Gate. The execution of what was to have been a slow and gradual improvement and metamorphosis,

necessarily made difficult by existing limitations, will now be rendered simple and direct through the ruthless and complete ravages of earthquake and fire. It was estimated that the work would take several decades to complete, and the commonwealth stood ready to issue bonds to the extent of 110,000,000 dollars every ten years.

It has seldom occurred in the history of mankind that so enormous a disaster has given an opportunity equally great for the re-creation of a mighty city according to studied artistic ideals. Having once mastered her present crisis and chaos, San Francisco will by degrees grow to be the most beautiful and most modern of the cities of the New World. Profiting through sore experience, great attention will no doubt be paid to the most scientific forms of construction to resist fire and torsion strains. The same unconquerable spirit that urged the Pioneers and Argonauts to build and rebuild this city upon the barren sand-dunes of the peninsula still lives in the breasts of their immediate descendants. It is manifested in the resolution to restore whatever beauty their city possessed, and to bestow upon it the new splendours they had planned.

HERMAN SCHEFFAUER,

*Vice-President of the San Francisco Architectural Club.*

## The Milan Exhibition.—II.

As time wears on the firm to which the monopoly of exhibition photographs was given adds a few to the number of those already published. As there is no competition there is no hurry, and an Italian rarely hurries even when it is really necessary, and never when there is no occasion for it. This is the excuse which must be accepted for the paucity of photographs to illustrate the detail of the buildings. Some of the *motifs* were briefly referred to in the July number, and as far as it is possible the others are included in the present article.

What are the elements which have been fused together in the crucible of the modern Italian brain to produce the decorations at Milan? The answer appears to be chiefly a thorough knowledge of every branch of the Renaissance and the treatment of foliage and natural objects in a natural rather than a conventional way. But there is much more than this which has gone towards making up the whole. The classic styles were each the home product of a single people; the principles of Gothic were thoroughly understood in most of the countries of Europe, and in each it was developed more or less with the stamp of the nation's idiosyncrasy upon it. Travelling was hard of accomplishment, and there were no print-

ing presses; therefore it was that for each country the range was necessarily limited. Under the Renaissance period travelling had become more easy, and it was not so very difficult for a young man to go to Italy and measure and sketch the remains of Roman rule. But still the only architectural books were of a strictly academical sort—works on the orders, such as the many reprints of Vitruvius and the treatises of Serlio and Alberti.

When we in our barrenness of invention began a Gothic Revival the Italians were still clinging instinctively and with a similar feebleness of ideas to Renaissance forms, but executing them in plaster. The artist of to-day has had every advantage. Except for the difference in the length of the journey it is almost as easy to reach Florence or Venice as it is to go from London to Bristol; while many publishers on the Continent—Hoepli, for instance, of Milan—are doing the same good service for architecture as Mr. Batsford at home by issuing a stream of books to illustrate every branch of art. The present-day architect, given he be a true artist, may command the most intimate knowledge of every style.

This is the cause to which we must trace the fertility of the modern style. It savours of the self-respecting earlier Renaissance, the Barocco,





THE SWISS PAVILION.



THE AQUARIUM : DETAIL OF CENTRE BAY.



and the French style of Louis XV, all in one. At first sight we are inclined to suppose that it is not to be treated seriously, but when it is evident that what is being done in the Piazza d'Armi in lath and plaster is also being carried out in the streets of Milan, Padua, and Verona, in stone or marble, it is evident that these buildings are meant to live, and must have an influence on the architecture of the future.

In all the Italian designs in the Exhibition—by which it is meant that the remark does not apply to the French Decorative Art Pavilion—there is a marked weakness for debased Ionic capitals, perhaps because the volutes have in themselves something of the curling line which underlies modern Italian design. It does not matter what the material or feature may be, these curves occur in every place. The interior of the Concert Hall has now been photographed, and except that the glitter of the gilding is necessarily not reproduced, a tolerable idea may be formed of what Milan can do when she sets herself the task of illustrating the *style barocco*. We may try to excuse it on the score that it is a butterfly erection, but when the first natural surprise has worn off it is not a building which pleases.

The Ionic capitals are well to the fore in the Architectural Pavilion; the portico rests on them and they carry the lintols of the windows; they serve once again, raised on slender columns, to bear up the allegorical figures before the entrance;

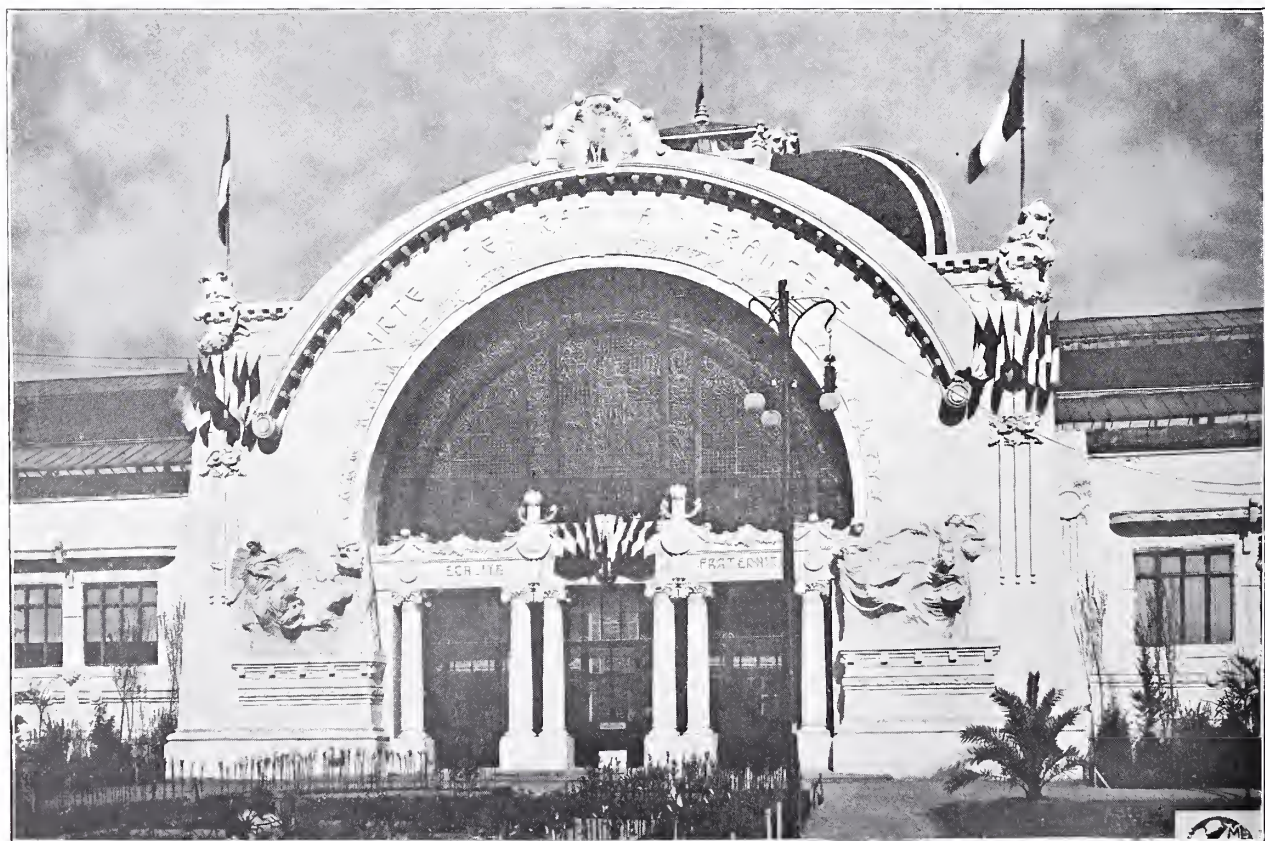
which figures are not named, but may be supposed to represent some local equivalent to the Institute on one column and the Architectural Association on the other. And who shall say that the wreaths clenched, one in each hand, are not emblematical of the two careers open to young architects: the career in which art is to be relinquished in the quest for commissions, and the other in which there is much art and few emoluments?

Behind Architecture there appears in the background a portion of the curved walls enclosing the Fine Arts Galleries. The design is one which gains its whole effect from the repetition of a simple theme and the receding slope of the wall.

We do not know whether the Emperor of all the Russias subscribed towards the cost of erecting the Pavilion of Peace, nor whether he selected the texts which adorn the pilasters. It may be edifying after studying battleships and machine guns in the Marine Section to be told "Thou shalt not kill," or that "We are all of us brothers and bound by bonds of eternal union"; one might be suspicious of a gentle hint that even in Milan, and in July, it is not advisable to partake too generously of cooling streams, in the quotation from Dante,

"Fatti non foste a viver come bruti,"

but in sober truth these aphorisms look too much like advertisements to be pleasing. As the authorities never even attempted to prepare this



THE FRENCH DECORATIVE ART BUILDING.





DETAIL OF AUTOMOBILE AND CYCLE PAVILION.



THE PEACE PAVILION



building for the date of opening the workmanship is superior to that of the other erections.

Belgium has not escaped the wave of the Neo-Renaissance—we still wait for someone to invent a suitable name for the modern style—though she has nothing to show us which can compete with what Italy is doing in the same line. Switzerland seems to have caught the contagion and has applied it to her pavilion, blending it oddly with the principal features of her national style. We may expect, therefore, to see the faces of our cuckoo clocks so changed in the near future as to be unrecognisable, and the little Swiss people who in early days disappointed us by never prognosticating the correct weather will perhaps discard the houses of their fathers and dwell henceforth in buildings with horse-shoe windows and flag-besprinkled pylons.

It is when such buildings as the main entrance to the Agricultural Pavilion come into view that serious doubts begin to arise. The two statues representing “Earth” and “Cultivation” facing each other are suitable enough, but the two columns that have never been finished, and the gallery across them looking like the scaffolding still left in position, to say nothing of the wooden roof aping the form of iron construction, are greatly to be condemned. There is a firm of constructors in woodwork with a factory in Milan who have invented an entirely new (and entirely hideous) method of construction in timber which they are pleased to call “artistic.” Unfortunately it has taken the public mind, and many of the minor shows are carried out in this system. That it is spreading, and at the same time abominable, is to be judged from the roof of this pavilion. But there are many worse examples to be found, especially the railway stations in the grounds; however, there is no need to illustrate them.

When, as has already been mentioned, Italy in days of poverty took to copying marble façades in plaster there arose a new craft—that of the *stuccatore*, or modeller in plaster; we have no equivalent in England, and, if we had, our climate would speedily destroy any attempt at delicately wrought plastering which was exposed to it. But the *stuccatori* have through successive generations attained to a high standard of efficiency, and their work in most of the buildings in Milan, and especially in the Auto-car Pavilion, is excellent. In parts of the Machinery Hall it is perhaps better still, particularly in the modelling of the grotesque and symbolical ornament. Not unfrequently the work is done by the modeller without the aid of full-size drawings, and some of it has been executed with no guide save the natural instinct of the workman himself.

The symbolism in ornament which has been

referred to more than once in the course of these notes reaches a climax in the Aquarium. This time we have to deal with a permanent building, constructed of something more solid than lath and plaster. Though the interior is far from finished, they have been very careful to complete the outside in time for the Exhibition. The front is of stone (it looks like breccia stone, but it may be a reinforced concrete imitation), and it is with a sigh of envy that an English architect looks at the evidences of lavish expenditure and a free hand. A dolphin obligingly lends his tail to serve as a finial; slimy toads in the frieze spout streams of water down the pilasters on to strange-looking shells. The capitals drip with seaweed; conches and cockles encrust the keystones and bands of relief; while crabs, limpets, and prawns are there to assist. Below it all there is the head of a hippopotamus jutting from the masonry, just for the purpose of snuffling out two little streams of water from dilated nostrils into a clear pool beneath. And in the middle stands the gigantic figure of Father Neptune, as who should say, “This is my kingdom from under the Seas.”

So much for decorative art as applied to the buildings; but as applied to interiors there is little. In this respect the Exhibition has not fulfilled the promise of the prospectus. Some day, perhaps, an International Exhibition Committee will contrive to make its exhibition really an international one. The trouble is that the other nations do not take sufficient interest, and whatever representation there is is the outcome of private enterprise and speculation. For an ideal exhibition of decorative art (and such a thing would be of incalculable advantage to present-day artists, besides in the current phrase “educating the masses”) the committee of management would in the first place have to be international, and the various countries would, as a matter of course, see that their representation was adequate. However, this is neither the time nor the place to preach revolutionary principles.

Milan understands the term “decorative art” to include a great deal more than is usually implied in England, and it is surprising to see the medley of goods gathered under shelter of the name. It is only now (the end of June) that these buildings have been “inaugurated”—which means that all persons concerned have an official lunch, and those who are able make speeches afterwards—in spite of the fact that a month ago the public was being asked to wait “another five days.” Now that it is at length exposed to view it is disappointing to find machine-made braces and socks of a distinctly French pattern masquerading under this heading; and stuffed chickens in a glass case, with “fashions” to right of them,





PORTICO OF PAVILION OF ARCHITECTURE. (IN BACKGROUND DETAIL OF THE CURVED ART GALLERIES.)



AGRICULTURE BUILDING: MAIN BLOCK.



artificial flowers to left of them, and imitation diamonds in front of them. After a succession of similar displays it became positively necessary to go out again and see if it were the right building.

Badly arranged classification is chiefly responsible for this. Though there is a special pavilion for jewellery the only exhibits in the section are Italian; for the other nations which have thought fit to send anything have grouped them under their own separate pavilions.

The English sections, therefore, should be of the first interest in our eyes. After a careful review of all the exhibits the question inevitably arises, What was the £10,000 voted by the Government spent on? We have little enough in any of the sections, but in architecture and decorative art practically nothing. Here and there there are stray exhibits; but the most astonishing thing is the departments under which they are classed. For instance, under the heading of "Retrospective Transport," to which other nations have sent ancient state carriages and coaches, the City of London has contributed photographs of tests made by the Fire Prevention Committee (!) We were told that cork soles would be included under means of transport, and as the City has sent a picture of London Bridge it may be presumed that on this rests the exhibit's claim to the classification it has received. From London Bridge to Old London Bridge is, so to speak, but a step; and thence to the old Houses of Parliament is another; so we have pictures of the destruction of the latter by fire, and of course from thence to fire prevention is the most obvious thing in the world. The large number of photographs shown are of real interest, but the titles are only in English—the solitary instance in which the descriptions are not in at least two languages. Then, too, the descriptions are insufficient to demonstrate what was the object of each test and what the result. In this way a good exhibit has been robbed of half its interest. To these records are appended plans showing the areas devastated in London and Toronto by the great fires of recent years, and here Milan might learn a lesson in promptness; for while in England and Canada the traffic has to take its chance when the engines are on their way to an outbreak, in Milan the firemen politely pull up so as not to hinder the trams. Whereas the total fire brigade was on the spot in ten minutes in the last Toronto fire, in a conflagration in Milan recently it was twenty minutes after the alarm was given that the first engine arrived.

In the English section of decorative art there are a few designs for wall papers which were sent by Mr. Walter Crane, and a cartoon for a stained-glass window by Mr. R. Anning Bell. This is

the sum and substance of our national representation. There is a little more to be found in the Hygiene building. Our place is ably filled by Mr. E. T. Hall's designs for hospitals at Frimley and Camberwell, and the City of Leeds Seacroft Infirmary; aided and abetted by Mr. Percy Adams's plans of the King Edward Sanatorium, the Newcastle-on-Tyne Infirmary, and a hospital at Constantinople. There are also models of the latest London fever hospitals.

And here it may be remarked that the English hospital arrangements hold a strong lead over those of other nations. This is patent from a comparison of all the many hospital designs which line the walls. In Italian, French, and Swiss planning there is a clearly marked advance in each new hospital built, and each development is in the direction of following English ideas, until in the most recent—an Italian one—to be erected this year, the plan is exactly the pavilion one adopted in our own country, only modified to suit the brilliancy of the light by having one window to every two beds. The sanitary appliances are placed in towers, but they do not seem to consider bridges necessary. In the last French hospital (the Paris Hospice de Brevannes, for tuberculosis) the wards are disposed in pavilions, but the bathrooms, etc., are included in the main block.

The exhibits in the Architectural Section call for longer consideration; and it is much to be regretted that it was impossible to obtain reproductions of at least one of the many valuable records which for the nonce have been brought out into the light of day. We might still learn some useful lessons from Italy in one or two matters pertaining to architecture. The first would be from the excellent State control exercised over the restoration of all buildings with any claim to be considered public monuments, and the careful and complete records kept by means of documents, photographs, drawings, and casts of the various stages of such works. It is due to the whole world of art that Italy should preserve her unique monuments, and the means by which this end is achieved is thorough in the extreme. Each province has its "Ufficio Regionale per la Conservazione dei Monumenti," and all works of this nature are entrusted to their care. The demands made on them are sufficiently manifest from the small selection on view at Milan. From Venice there are some two hundred photographs which deal with the fallen Campanile alone, and illustrate the brick stamps, the *débris*, and the foundations. Most interesting of all are the photographs of the beautiful Loggia of Sansovino and the state in which it was found under the ruins. The celebrated bronze gates appear to have been





INTERIOR OF BELGIAN PAVILION.



INTERIOR OF CONCERT HALL.





DETAIL OF MACHINERY HALL.

scarcely even bent by the catastrophe, and it seems that the structure gave way at a point on a level with the roof of the Loggiatta, leaving the latter more or less intact. It was a miraculous escape, with something like 20,000 tons of rubbish covering them. The Libreria suffered far more, and much of the exquisite carving was irretrievably ruined. Some interesting models are shown of the old foundations with the present additions which have just been finished. In a like manner the works of restoration at the Palazzo Ducale are equally thoroughly represented; and the drawings would shame the best of the Testimonies of Study submitted for the "Final." Surely not even Ruskin himself could object to the methods employed; for the dimensions of every stone are shown. Those which have not been touched are left uncoloured, all that had to be

removed temporarily are indicated by a special tint, and the stones which were too perished to be fit for re-use are all indicated on the drawings by a clearly recognised colour. It is difficult to imagine any more thorough method.

From Genoa come records dealing with the restoration of the Palazzo San Giorgio which proudly claims to be the oldest bank in the world, dating back as it does to the thirteenth century. Milan has contributed details of work done and doing at the Castello Sforzesco, and to Sta. Maria delle Grazie, in whose convent refectory are to be seen the vanishing relics of Leonardo's *Cenacolo*.

But of all the things which have a world-wide interest in this pavilion the documents and designs dealing with the historical front of Milan's own Duomo hold the first place. The cathedral has



always been a standing wonder; for, as has been pointed out a score of times, Italy as a nation never deserted Classic ideas and took to Gothic. Orvieto and kindred cathedrals are feeble beside French, English, and German ones of even second grade. Yet here in Milan is one of the very finest monuments of the Gothic style transplanted from across the Alps, and with nothing in the country leading up to this masterpiece and nothing following after it; and now, as in past days, the cream of Italian architects are absorbed in scheming how the great western façade may be made truly Gothic.

As the documents and plans now on view in Milan are generally kept in the archives no excuse will be necessary for the introduction of a short description of them here. Pellegrino Pellegrini was the first architect to be called upon to produce a design, and in 1592 he prepared an elevation very much like that of St. Peter's at Rome, but with two huge detached campanili "to make it look impressive." After him there came Francesco Maria Richino in company with Antonio Maria Corbetta. These two kept to Pellegrino's idea, but tinkered with it here and there to justify their appointment; but when Richino died Corbetta in 1610 proceeded to alter the design of the upper portion and tried to make it "German" (*partim modernam et partim theutonicam*). But the work which was actually begun in 1638 was from the design of Carlo Buzzo, or Buzio, who seems to have been sufficiently familiar with Gothic to insist on a great west window. His elevation forms an interesting parallel with the Houses of Parliament, for in disposition of parts his design was inspired by the Renaissance, and only saved from being such by a plentiful sprinkling of crockets, canopy-work, and pinnacles. Meanwhile other architects were busy pointing out the mistakes made by the Committee of Works; and among the designs sent in is a delightful one by Francesco Castelli. He had an arcade along the front after the manner of Peterborough, and carried it on spiral columns; while on the inner wall there were a row of Renaissance windows, one to each bay. "With neither reason nor restraint (and, we might add, without beauty) it rushed madly through all the architectural styles."

The work seems to have been stopped about this time, and in 1683 went on again, still following the design of Buzzo. He died in 1658, and was succeeded by Girolamo Quadrio, who for sixty-four years supervised the work and left it approaching completion. On his death there came a flood of new advisers with new plans, all of them with a colonnade along the front and most of them with spiral shafts.

At the end of the eighteenth century the Marchese Luigi Cagnola—who designed the beautiful Arco dalla Pace in Milan—produced three designs for an entirely new façade, but they do not seem to have received consideration, for in 1790 the chapter were still proceeding with Buzzo's plan.

In the same year, or shortly afterwards, Felice Soave of Lugano was called in, his design approved, and the new work commenced. But it was stopped by the arrival of the French and Napoleon. Napoleon was not a man to waste time in making up his mind; in the middle of the night he sent for one of the chapter and demanded what it would cost to complete the work.

"Four million lire," was the reply.

"Très bien," said the Little Corporal, "you may go back to bed."

Next day the order was given to proceed. But Soave's design, after all, cost too much, and finally Giuseppe Zanoja and Carlo Amati were called in, and in 1813 commenced the façade as it is to-day.

It is not really "finally" though; for Milan does not yet consider her Duomo finished. A new competition was held in 1884, and the designs for this too are on view. There is a great similarity shown by them all; instead of the present one huge gable they show clearly on the façade that it is a five-aisled structure, and the divisions are distinctly marked. The successful design, which will (perhaps) be carried out, is on these lines and includes a magnificent west window and three great Gothic porches, or rather recessed doorways. Those who have not seen the design may be inclined to imagine that the appearance of the familiar front will be substantially altered, and may regret it; but as a matter of fact it presents so little difference to the ordinary observer that it is necessary to compare the present with the future point by point to be able to say definitely where the differences lie.

One more among the things architectural does not admit of being passed over in silence; and that is the excellent work done by the 'Scuola di Prospettiva Scenografica della Regia Accademia di Belle Arti' at Bologna. This is a class in which some fantastic or unusual subject is set, and is illustrated by the students, not by plans, sections, and elevations, but simply by means of architectural paintings. There can be no doubt as to the advantages of such work to allow students to develop their imaginative faculties without having to worry over constructional difficulties, and some of the designs produced show high qualities of invention.

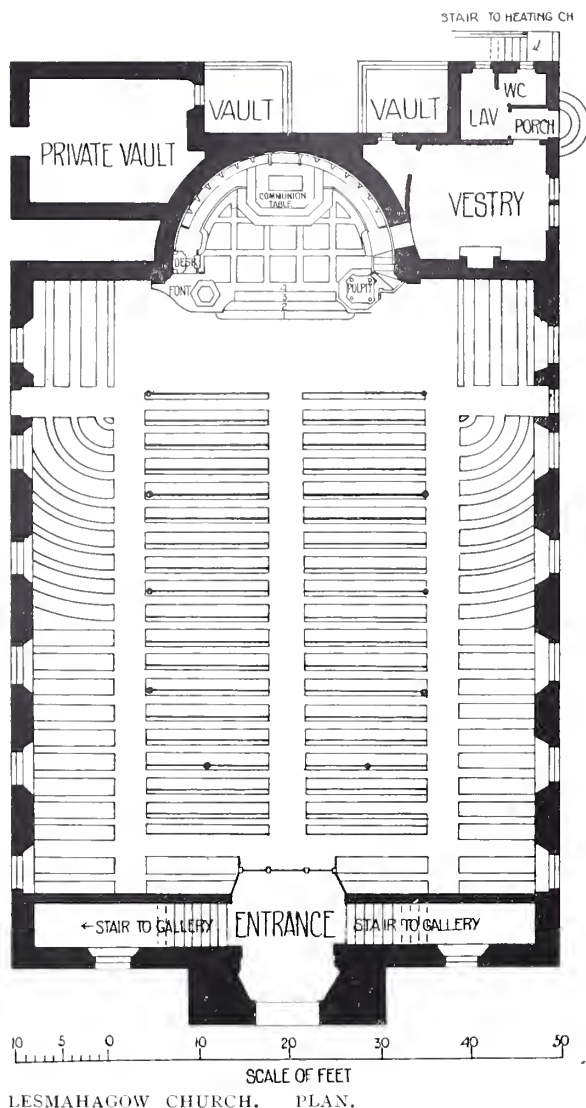
ROBERT W. CARDEN.

*Special Correspondent to the "Review."*



# Current Architecture.

LESMAHAGOW PARISH CHURCH, LANARKSHIRE.—The church was built in 1802, the third in succession on the same site, the first of which was of very early date. Before alteration it con-



sisted of a plain oblong with gallery all round, and flat plaster ceiling. The last was removed and the fine queen-post timber roof exposed, the apse was added, with new communion-table, pulpit, etc., the internal finishings, gallery front, and pews remodelled, and the windows reglazed with lattice-work, the whole in a simple form of Renaissance, in character with what there was of architecture in the old building. The pulpit and font being memorial gifts, a slightly richer treatment of these was made possible. The large east window and two smaller side ones had to be retained and incorporated—unfortunately for the general effect—owing to their pictorial rather than decorative character. The arrangement of the seats or stalls for minister and elders and of the communion-table is that of the early Christian basilica, as specially suited to and in character with the Presbyterian form of service, where at the celebration the minister must face the con-

gregation, and first passes to his elders the bread and wine for distribution. The lectern shown in the photograph is a temporary one of pine, designed to serve until a brass eagle is acquired.

The stone for apse arch, etc., is from Overwood, a local white freestone quarry of good quality. The floor and front of apse are of the same material, the former with squares of Rust's Vitreous Mosaic between, as also is the font. The fittings generally of apse are of Austrian oak, of the church of yellow pine. The contractors for the constructional work were local: for mason-work, Messrs. Clarkson; carpenter and joiner work, Mr. John Hutcheson. The oak fittings were made by Messrs. A. McKay & Son and John Craig; the wrought-iron and copper work by George Adam, the stone font by William Vickers, the mosaic flooring by Galbraith & Winton, the glass by Wm. Meikle & Sons, all of Glasgow. All the various works were carried out to the design and under the direction of the architect, Alex. N. Paterson, M.A., of that city.

PANELS FOR AN ORGAN CASE.—These two panels were painted and designed by Mr. Robert Christie for an organ designed by Mr. Norman Shaw, R.A., and erected in Thurstaston Church, Cheshire, by the Misses Ismay in memory of their father, Mr. James Ismay, of Dawpool. These panels are painted in oil upon a gold ground, and decorate the doors which stand open on each side of the pipes about 8 ft. or 10 ft. from the ground.



WINCHESTER HOUSE.

JOHN BELCHER, A.R.A., ARCHITECT.

Photo by Mr. Oswald Colls of the Order on second storey.





*Photo : Annan.*

LESMAHAGOW PARISH CHURCH, LANARKSHIRE.  
NEW APSE AND REFITTING.  
A. N. PATERSON, ARCHITECT.



*Photo: Annan*

LESLAHAGOW PARISH CHURCH, LANARKSHIRE. THE PULPIT.

A. N. PATERSON, ARCHITECT.





PAINTED PANELS FOR AN ORGAN CASE BY ROBERT CHRISTIE.



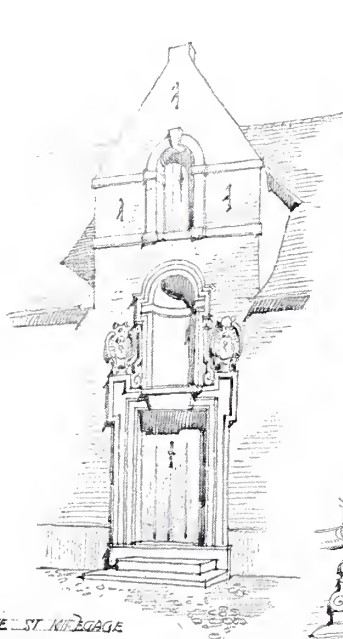


ST. ELIZABETH'S  
GHENT

DAIED 1657



ANTWERP



WEST CHURCH  
BRUGES



DOOR  
GHENT



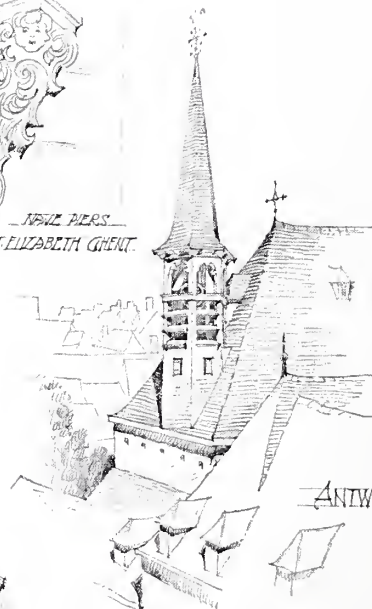
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MAINES



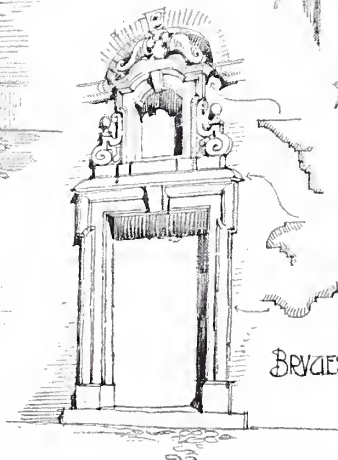
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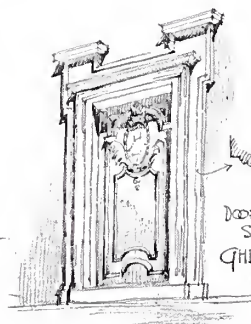
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BALCONY  
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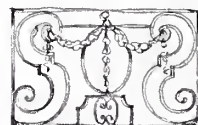


DOOR IN  
ST. PIERRE  
GHENT

DATE 1755



BALCONY  
GHENT



BALCONY GHENT



THE ARCHITECTURAL  
REVIEW, SEPTEMBER,  
1906, VOLUME XX.  
NO. 118.





THE CUSTOM HOUSE, DUBLIN.

Photo: Arch. Rev.



# Some Dublin Buildings.—II.

(Conclusion.)

DUBLIN had to make many efforts and to wait a long while before she got her University. In 1311 the Archbishop of Dublin obtained a bull from Pope Clement V. to establish a University for scholars, but the death of the prelate put an end to the project. It was revived in 1320 by his successor, who got a confirmation of the bull, drew out statutes, and set up the University in the church of St. Patrick. For lack of funds to support the students this also failed. Another abortive attempt was made by the Dublin Parliament in 1568. In 1585 Sir John Perrot, the Lord Deputy, tried to establish two Universities, the funds to be raised by the dissolution of St. Patrick's Cathedral. The archbishop defeated this scheme, but, convinced of the necessity for such a foundation, persuaded the mayor and citizens to grant the Augustine Monastery of All Hallows as a site for the college. Queen Elizabeth confirmed the grant in 1591, the work was begun in that year, and the first students admitted in 1593. The poverty of the country made the raising of money very difficult, and Tyrone's rebellion, by stopping supplies from Ulster where the Queen's endowment lay, nearly put an end to the work. But the State took it up, and later on the benefactions of James I. and Charles I. firmly established the foundation.

The first addition to the Elizabethan building was the library, begun in 1712 from the designs of Thomas Burgh, but probably from the usual scarcity of money was not completed until twenty years later. Originally it was raised above an arcaded piazza, and must have been a fine room. What is left of Burgh's work inside is of good and careful detail and excellent workmanship. Would that the same could be said of the alterations made in 1861! A reference to the views given will show how utterly the room was then spoiled. The new roof pushed out the walls, the piers and arches of the piazza failed and had to be made into solid walls, and the space so enclosed divided up into rooms.

To hark back, in 1759 Sir William Chambers was called in to modernise and extend the old college. His scheme swept away the Elizabethan brick building and what remained of All Hallows Monastery, and on the site of the former was placed the great western block which now faces College Green. Beyond this is the quadrangle, with hall and chapel on the north side and the theatre on the south, and beyond this again

another court whose south side is formed by the library.

Chambers never visited Ireland to supervise his work. He sent a good sketch model of his design, which is still to be seen in the college, followed by the working drawings and specification, and for this he received the regulation  $2\frac{1}{2}$  per cent. commission. The building took more than twenty years to complete. Always correct and scholarly in detail, Chambers's work here is undeniably dull, and he did not make as much as he might have done of the opportunities afforded by so splendid a site. The centre block, with its widely spaced columns and pilasters, is not happy in its proportions, but the wing pavilions in themselves are fine. As a whole it does not bear comparison with the vigorous and monumental work of his pupil Gandon at the Custom House, which we shall consider later on.

The design of the provost's house is taken from one in Campbell's *Vitruvius Britannicus* attributed to Lord Burlington. The copyist, whoever he was, carried out his work well, and the interior is spacious and dignified.

The Royal Exchange building was the outcome of a competition, held in 1769, in which several architects took part. The winning design was by Thomas Cooley, an Englishman; James Gandon (whose first effort this was to secure work in Ireland) was placed second, and T. Sandby third. Competition methods then were even less satisfactory than they are now. Competitors brought to bear all the influence they could command to control the decision. Gandon had the powerful backing of the Beresford family, and used it. On the other hand, his design was badly "slated" by an anonymous pamphleteer. In the end the Dublin merchants remained unmoved, and the work was given to Cooley. This architect, a man of considerable accomplishment, as this and other works show, began life as an apprentice to a carpenter. The winning of this competition brought him to Dublin, where he remained to practise. It will be remembered that he was consulted by the House of Lords, and a scheme for extensions entrusted to him, which fell through. He also built a new prison and designed the Courts of Law, of which only a beginning had been made at the time of his death, the work being carried on by Gandon, who is usually credited with being the sole architect. The Royal Exchange took ten years to build, and, as a contemporary chronicler puts it, "the expenses, amounting to about £40,000, were defrayed by





PROVOST'S HOUSE, TRINITY COLLEGE. THE BALLROOM.

*Photo : Arch. Rev.*

TRINITY COLLEGE LIBRARY. FROM A PRINT PUBLISHED IN 1793.





CEILING IN BELVEDERE HOUSE.



CEILING, ST. STEPHEN'S CLUB.

*Photos: Mayne.*



lottery schemes conducted by the merchants of Dublin with an integrity that will do them immortal honour." The building is now the City Hall, and its stately interior destroyed by being cut up into municipal offices.

Before dealing with his chief work, the Custom House, some account should be given of the architect, James Gandon, whose name has frequently occurred in the course of these notes. He was born on February 29, 1742, in New Bond Street, his grandfather being a French Huguenot, who came to this country on the revocation of the Edict of Nantes. He became a pupil of Sir William Chambers, and it must have been soon after the completion of his apprenticeship that with Woollfe he prepared and published in 1767 the two final volumes of *Vitruvius Britannicus*. Eighteenth-century architects had no scruples about bringing their names before possible patrons and the public by publishing their own or other people's designs.

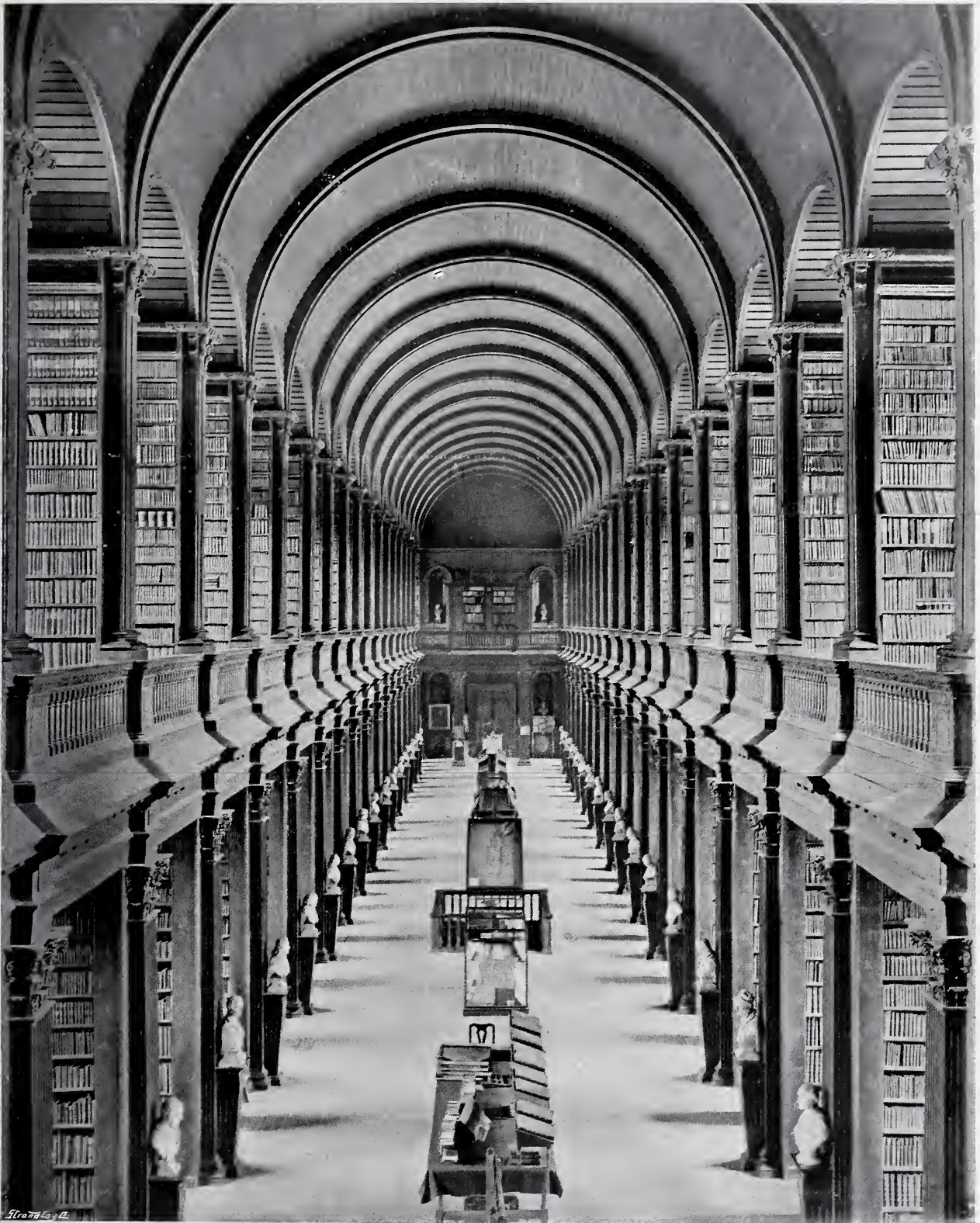
Soon afterwards he won in a competition of architects his first work, the County Hall and Prison at Nottingham. This was carried out in 1769-70. While he was at work on this the Royal Academy had been founded, had held its first meeting in December 1768, and offered the first gold medal for an architectural design, the subject being a Triumphal Arch to commemorate the Seven Years' War. Gandon was very anxious to compete for this, and only to enable him to do so became an Academy student, with the result that he succeeded in carrying off the coveted medal. This was in 1769, the same year in which, as we have seen, he competed for the Dublin Exchange. He continued to practise in London, and in 1776 won the first prize in a competition for Bethlehem Hospital, but the carrying out of the work was given to another architect. Gandon had several powerful friends, and one of them, Lord Carlow, invited him to make plans for a new custom house, docks, etc., in Dublin. The scheme was kept as quiet as possible owing to strong opposition from the City authorities and the people of Dublin to the Government's acquisition of the site. When everything was supposed to have been arranged, Gandon went over to Ireland to start the work, but found that for some time he had to remain practically in hiding, and not go near the site for fear his presence in Dublin should be known. The land was a marshy swamp, and, moreover, liable to flooding by high tides, and the problem of foundations was a difficult one to solve. When at length a start was made, the site enclosed, and excavation begun, the Corporation made a demonstration, and pulled down some walling. The mob also broke loose, and Gandon, who feared that it would fill up his trenches, was

relieved to find it amusing itself by swimming in them! After this he was left in peace. The foundations alone took sixteen months to complete, and the difficulties of the architect, and how he overcame them, are told in his life. Mr. Blomfield ("History of the Renaissance in England") in a footnote quotes the description of the Cupola foundations.

In the course of the work Gandon discovered a very able native sculptor, Edward Smith. He had been working under the master mason, and when brought to the architect's notice was at once given a chance to make a model for the great Royal Coats of Arms on the balustrade above the wings in competition with Carlini, who, with Joseph Banks, had made and sent over from England models for the statuary. Gandon was delighted with Smith's design, gave him the work, and thereafter employed him as sculptor and carver. Among other work he executed the splendid series of river-god keystones.

The building of the Custom House took ten years, and gave its architect an immense amount of trouble. The composition is a very fine one, grouping well from all points of view, and the details are worked out with great knowledge and taste. Its crowning feature, the cupola, may have been inspired by those of Wren at Greenwich, with which it has many points of resemblance, notably the plan and design of the drum and peristyle with its coupled Corinthian columns. The latter are, perhaps, its weakest point, offering too great a contrast of scale to the great order of the main building below. The whole work, however, certainly secures for its designer a place among the greater architects of the century, and shows him to be one who carried on an earlier and more vigorous tradition at a time when the style was fast becoming frigid and lifeless. A consideration of Gandon's life and works leads me to dissent from Mr. Blomfield's opinion that "his interest in architecture lay rather in its mechanical than its artistic side," although I agree that "he was a bold constructor and a man of powerful imagination." I think his buildings show that he must have taken great personal pleasure and care in the purely architectural part of his designs, and his immediate recognition of the sculptor Smith's talent proves that he was a sure judge of the artistic capacity of those who worked under him. Even when he had retired to his house at Lucan, at the age of sixty-six, being then, as all his life, a martyr to hereditary gout, he was not altogether (as Mr. Blomfield says) "occupied with planting." He interested himself in various artistic and architectural matters, and his idea (for which he made designs) of making Westminster Bridge into a triumphal one, as a memorial of our naval victories,





*Photo: Arch. Rev.*



*Photo: Arch. Rev.*

MAIN PORTICO, CUSTOM HOUSE.





*Photo: Arch. Rev.*

THE CUSTOM HOUSE, CENTRE BAY AND DOME.





Photo : Arch. Rev.

THE PROVOST'S HOUSE, TRINITY COLLEGE.

*Roundley &*





*Photo: Arch. Rev.*

TRINITY COLLEGE, DUBLIN.



*Photo: Arch. Rev.*





*Photo : Mayne.*

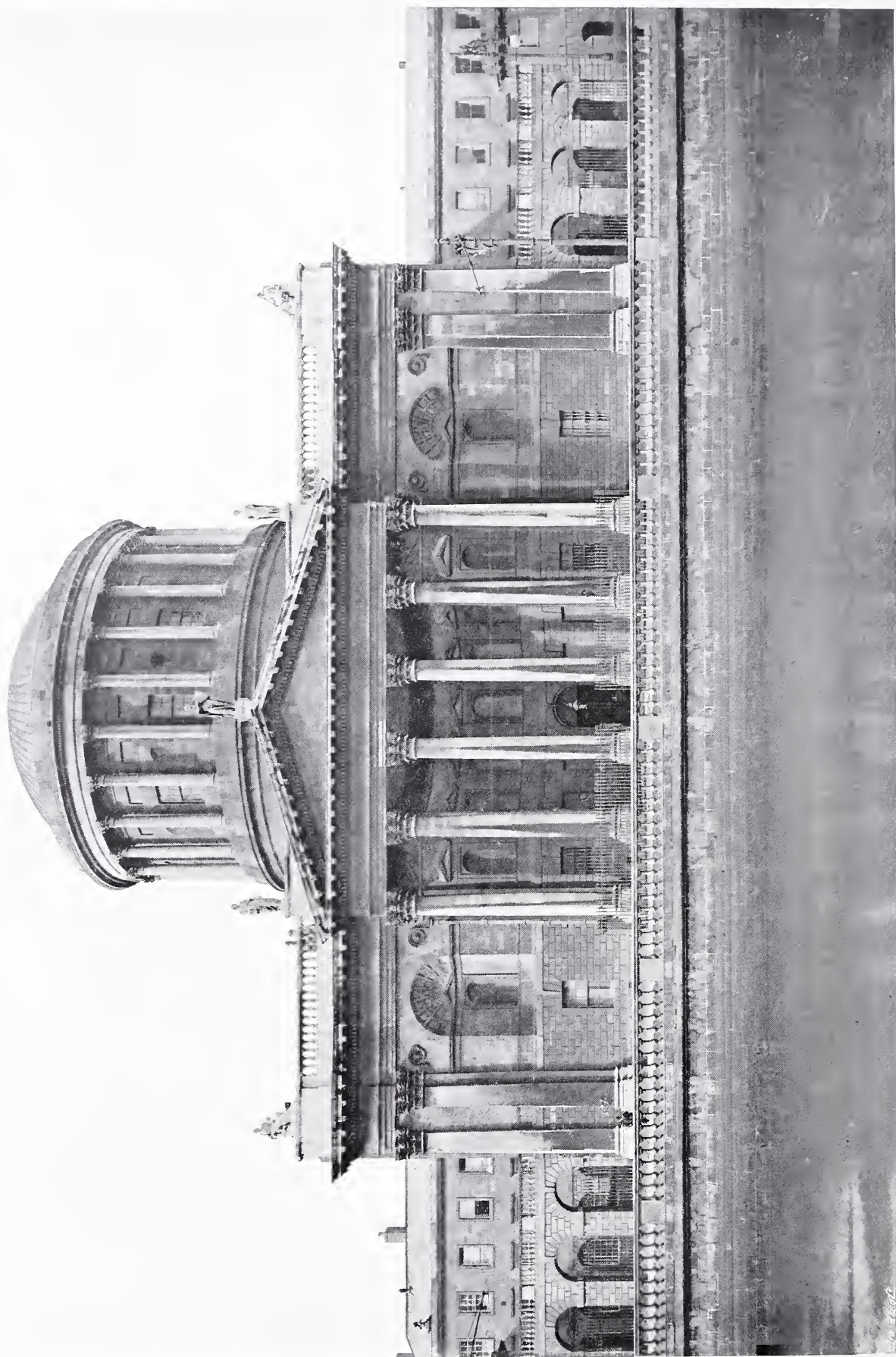
CEILING, OFFICES OF CHURCH REPRESENTATION BODY.

was a striking project, and surely showed his strong liking for the purely architectural aspects of his art. Gandon retired in 1808, under circumstances which we shall notice when writing of his last work, the King's Inns, and died in 1823.

The provision of new buildings for Law Courts and legal offices was first taken in hand in 1776, and the designs were made by Thomas Cooley, who has been mentioned before. The first block started was to contain the Office of Records, and this was only partially built when the architect died and was succeeded by James Gandon. It is probable that Cooley laid out the plan of the whole building, and that Gandon only carried it out on these lines, varying perhaps the details. The progress of the building was then delayed until 1786 by the difficulties of clearing the site—a

crowded area—and dispossessing the people; and even thereafter the work seems to have dragged along hampered for want of funds and other troubles. When the foundation stone of the main block had been laid in state by the Lord Lieutenant, and everything was ready to go forward, a certain right honourable gentleman, irate at not having been consulted, threatened to have the building pulled down if it went on as planned. What grounds he had for this opposition we are not told, but his position and influence were strong enough to oblige the government, in order to avoid trouble and litigation, to humour him, and Gandon, much to his regret, had to set back his portico (which was to have covered the foot-way), thereby further curtailing an area barely sufficient for the accommodation required.





THE FOUR COURTS. CENTRE OF RIVER FRONT.

Photo: Arch. Rev.





THE CITY HALL, FORMERLY THE ROYAL EXCHANGE.

In spite of its river frontage, imposing mass, and fine lay-out, the building is rather a depressing one. The flat crownless dome springing without preparation from the great rotunda has a hungry look, and one wonders how Gandon, with the fine feeling for outline shown in his Custom House, could have designed it.

The last block, the King's Inns, was still incomplete in 1808, and the Lord Chancellor, irritated by delays for which the architect was in no way responsible, wrote a sharp letter. Gandon in his reply, after rebutting the charges brought against him, resigned his position, recommending that the work should be completed by his pupil Baker, who had all his drawings and instructions and was capable of carrying them out.

The public buildings which we have illustrated are those architecturally most important, but the lesser ones of this period, such as churches, schools, and hospitals, have an interest of their own. In an age in which architects were required to study and work in one style only, it was possible for them more easily to reach a high level of accomplishment. If this restraint tended to check originality it at least prevented displays of ignorance and vulgarity, and small as well as large buildings, if often dull, possessed some good features of the prevalent style and taste.

The town houses built by the nobility and

landed gentry were, like those in England, planned more with a view to spacious entertaining than domestic comfort, their halls and staircases especially being on a very generous scale. The ordinary doorways are of a good and quite individual type, differing considerably from the same class in London. The use of ornate plaster decoration, much of it evidently modelled *in situ*, was almost universal in these Dublin houses, even the smaller kind having rich cornices, and there must have been a large number of skilled workers in stucco, foreigners most likely, both in the early part of the century and later when the influence of the Adam school had made itself felt. Mahogany was used for stairs and doors, and in Tyrone House (1740) a contemporary account says, "the oak perkenen floors are curious, being laid out in diamonds from eighteen to twenty inches square."

With the passing of its Parliament, Dublin gradually lost the occupiers of these lordly houses. Many of them have now become clubs and other institutions, and some, alas! have been dismantled and cut up into tenement dwellings.

In concluding these notes I wish very gratefully to acknowledge my indebtedness to Sir Thomas Drew for his kindness in placing his own wide knowledge of Dublin and its buildings at my disposal, and also for directing me to other sources of information on the subject.

GODFREY PINKERTON.



# Architectural Refinements.

## A Reply to Mr. Prior.—I.

To the articles on the Architectural Refinements Exhibition at Edinburgh, which were recently contributed to this journal by Mr. L. Ingleby Wood, September 1905, and by Mr. Edward S. Prior, February 1906, I am privileged to add another; mainly as a commentary and supplement to the latter review.

By way of matter-of-fact introduction, and of limitation as to well-meant and kindly statements made by various parties, the readers of this article are advised that the entire amount of time devoted to observations in Italy has been less than ten months. It is, however, quite true, as Mr. Prior indicates, that the observations began thirty-six years ago, and also true that most of my activity in the matter has been within the last eleven years. Ten months' work in the field is, however, all that has been done in Italy. Outside of Italy there has been less than three months' work in the field, and this has been mainly in Northern France. Aside from Notre-Dame at Paris these observations in France were limited, with rare exceptions, to a single class of phenomenon, viz., to the vertical curves and to the lines of divergence in interiors (horse-shoe form of construction).

When the topic of mediæval constructive asymmetry is thus approached, by considering the limited territory of observation which has been covered, there will result two methods of looking at the subject broadly. One way is to emphasize the deficiencies of the observations, their lack of completeness and finish, and the hazard of arguing from the known buildings in one territory to those which have not been examined in another. The other way is to contend or concede that if any phenomena are proven definitely to exist, some others will certainly be found.

Between these two methods there is a third, viz., to push the really or apparently debatable cases well to the front; to devote to them the major amount of space and attention, to omit (or concede with excessive brevity) the crucial instances that point in another direction, and to wind up the treatment of the subject with an agnostic or negative conclusion and verdict, without further reference to these crucial instances.

The broad and general proposition that optical effects and illusions were frequently studied by the mediæval builders is conceded by Mr. Prior so rapidly and so briefly, that one easily overlooks this really important concession on his part to a "gospel which is good tidings to the mystic and the idealist, but foolishness to the craftsman." Let us rather linger for a moment over these

points, which this reviewer disposes of so rapidly, although so favourably. For instance: "When a floor, for example, is raised toward the east end . . . we can recognise such ceremonial dignity as designed—but I do not hold with Mr. Goodyear that the secret of it has been lost. Even before Mr. Goodyear enlightened his American friends, we European architects had been making good use of such devices." Now the Edinburgh Catalogue mentions that "eighty-five examples of the sloping pavement (rising toward the choir) were examined and levelled in Italy in 1895" (p. 19). The above approval of these observations is not at all weakened by Mr. Prior's mention that this use is familiar to his own practice or to that of his friends. The treatment of perspective illusions in Mr. Prior's review has a brevity which may be the soul of wit, but which might be lengthened out to the greater satisfaction of the mystics and idealists who are seeking for crumbs of comfort in his article.

For instance, his only quoted mediæval example of a perspective illusion is the Cathedral of Poitiers. According to the reviewer the existence of perspective illusion at Poitiers is now generally admitted, but he appears to be somewhat of a neophyte and a new-comer in this topic when he mentions that this has "long been maintained by Mr. Goodyear." I never saw the Cathedral of Poitiers until 1903, and have never made any mention of this church which did not include the name of Mr. Fergusson. The credit for the observation at Poitiers belongs wholly to him. There were no photographs for Poitiers at Edinburgh. My own observations for perspective illusions have been confined to Italy as far as publication is concerned, and these observations are not debated or described by Mr. Prior, and here my complaint as to brevity applies. It is really a total omission. He only says: "In a less theatrical way (than at Poitiers) the optical illusion has been used in all architecture to enhance the dignity of the principal or sacred object." Quite so! I have published some twenty-eight Italian mediæval examples of this use aside from the sloping pavements, none of which are theatrical, and all of which had consequently been overlooked until I published them. This being so, how does it happen that "Mr. Goodyear's gospel will be good tidings to the mystic and the idealist, but to the craftsman it is foolishness"?

Mr. Prior is too dexterous and expert a writer to have involved himself in a self-contradiction of which he is conscious. Striving to be fair, an effort which fairly bubbles and effervesces beneath



the surface of his finished and polished style, he still reminds me of a passage, which I take the liberty of quoting, from a recent letter addressed to me by Dr. Bernhard Berenson, who says: "I fancy you rapidly are passing from the 'not true' of one's earlier opponents to the 'not new' of one's later enemies." Carefully avoiding the implication that Mr. Prior is an enemy, although he appears to be an opponent, I should still be inclined to class him as a neophyte in the matter of perspective illusions, and of their deeply important relation to my investigation. Were it otherwise he could hardly embrace the gospel of the Edinburgh exhibits with one hand and reject it with the other. At all events all those who embrace this gospel must begin, as I did, with perspective illusions. Mr. Prior begins there.

Let it be once admitted that optical effects were studied by mediæval builders, and the gates are thrown wide open for a gospel which cannot be wholly foolishness when so adroit a debater as Mr. Prior has swallowed the first chapter without a gulp or a murmur. It is true that he numbered this chapter "No. VI." before he swallowed it, but here the older master of the given subject must be permitted to indicate the logical order of conversion. With a new gospel we naturally place in the foreground the dogma which can be proven most easily and most conclusively. This is the reason why the Edinburgh Catalogue, which opens with the associations between ancient and mediæval curves, because these came first in order of chronology, places the perspective illusions next in order. For the same reason the first article of the *Architectural Record* series of 1896-97, following the initial announcements, was devoted to perspective illusions, and this subject was continued into the opening of the next following article.

In the Edinburgh Catalogue I made no effort to exalt my own share or part in the recent acceptance of mediæval perspective illusions, preferring to put forward the more distinguished names of Auguste Choisy and Camille Enlart as champions of this chapter of the new gospel. If, however, the dates of their publications be compared with mine, the first announcements of the latter will be found to precede their own by about thirty years. If the multitude or variety of examples cited be in question, my publications in the *Architectural Record* for 1896, and my exhibits at Edinburgh, give my demonstrations a character for fullness and for priority of observation which these gentlemen have been the foremost to recognise. M. Choisy, for instance, wrote to me in 1905: "As regards the artifices of perspective illusion, you have given complete light," and M. Enlart has been most obliging in calling my attention to

unpublished French examples. My reviewer may easily have overlooked the Catalogue matter for the perspective illusion in S. Stefano outside the walls at Pisa, which says: "It was the inspection of this church, on the first day of a visit to Pisa in 1870, which led the writer to undertake the observations of this Catalogue" (p. 36).

Moreover, having announced (in 1874), on the basis of one week's work at Pisa in 1870, that perspective illusion would be found widely diffused in mediæval buildings throughout Europe (*Scribner's Magazine*, August 1874, p. 440), I waited for twenty-five years for an opportunity to establish this contention. Meantime, I had full experience of an intense and universal scepticism regarding this prophecy, and it was only by slow degrees that my publications of 1896 were accepted as proof of this contention for the Italian peninsula. The instances noted more recently by Choisy and Enlart belong, however, to France, and it is quite positive that these mentions might be widely extended. St. Mary's, Frampton, Lincolnshire, and Canterbury Cathedral (G. A. T. Middleton in *Nineteenth Century Magazine* for March, 1897) are two English examples. They are not likely to be the only ones.

In 1870, when this research began at Pisa, the perspective illusions of the Bernini period, to which Mr. Prior confines his reference, aside from Poitiers Cathedral, were public property of the German compendiums, but it was the opinion of the authorities of that date that these illusions were confined to the late Renaissance decadence (see the early editions of Jacob Burckhardt's *Cicerone*), whereas these Renaissance theatrical devices now appear to be only corrupt and crude survivals of a much more subtle mediæval practice, as I have elsewhere pointed out. Thus Mr. Prior again appears as a neophyte in perspective illusions when he compares the Cathedral of Poitiers with the Scala Regia by Bernini, as an instance of a "theatrical" device. I am obliged to confess that I could not in my own experience detect the facts at Poitiers by observation of the eye, although they were known to me by Fergusson's publication. After taking the measures for the plan it was still impossible to observe by the eye a narrowing toward the choir of  $11\frac{1}{2}$  feet in a length of 304 feet. As regards the vaulting and arches I was unable, during repeated visits to the church, to perceive that they were lowered toward the choir, and if it were not for Fergusson's statement I would not believe to-day that the vaulting has this construction. Mr. Prior states that the arches lower, and erroneously quotes me for a fact which I have never mentioned. Fergusson only speaks of a lowering of the vaulting. I looked for both and could detect



neither. Now we understand by a "theatrical" illusion one which is easily detected on the stage of a theatre and which is only effective from beyond the footlights. I therefore submit that at Poitiers the illusion is not "theatrical," and that it is on the contrary extremely subtle. In the numerous Italian instances which I have published the subtlety is demonstrated by the fact that they were previously unpublished and that they have notoriously not been otherwise noticed as perspective devices.

The reviewer indulges in some gentle raillery "on the *hidden* grace of these refinements, which are not to be perceived by careless glances, and yield their secrets only to the initiated eye." Here again I must confess, without reflecting on the wide knowledge in English cathedrals of Mr. Prior, that the neophyte in perspective illusion is revealed. In my observation the "initiated eye" is no better than any other. It doubtless does seem reasonable to suppose that the eye of a man who has just taken the measurements in a church ought to perceive the discrepancies which he has just measured. From selected points of view and with strenuous effort this is frequently, but not universally, true. From casual or unselected points of view I think it is never true. The pride of the modern critic revolts against the suggestion that he cannot trust his own eyesight, but my pride has been thoroughly broken in this regard, in spite of Mr. Prior's bit of fun, which intimates the contrary.

So, too, Mr. Prior's delicate raillery suggests that: "Nothing but the authority and initiation of a 'mystery' could keep alive through generations and bring to perfection a scheme of design so recondite that, except on the supposition of an ineffable holiness attaching to it, it could not be perceived. Its secret was not in itself or its refinement, but in the success of its secrecy." Here I should like to add that the success lay, not in secrecy, but in the everyday, matter-of-fact, and commonplace physiology of optics. This is proven by the continued success, in our own day, of the measured and photographed device in the case of the observer who has just photographed and measured it. That the practices were traditional is certain, that they were not taught to men who were not masons is certain, and that they were not taught to all masons is positive. Some of them were apparently, however, "banded builders who did it all and said nothing," as the reviewer wittily suggests.

The reader will notice that I am still dwelling on perspective illusions, although the quotations from the debated review actually refer to all classes of phenomena. And my argument is this—All the ridicule as to the "ineffable holiness" of

masonic secrets, etc., will apply to perspective illusions, and somehow or other it turns out that this ridicule lacks point and substance in that instance. Moreover, the ridicule would apply to Choisy and Enlart as well as to me, and this would be carrying the joke too far. Why then should we consider these particular objections as more than witty persiflage in face of the other phenomena?

It may be urged that perspective illusions are not dignified and are not to be recommended. To this we answer that our point of view is to study what the mediæval builders really did, and not what they ought to have done; second, that the practice was more or less exceptional, and that in Italy a vast number of churches which have other devices do not have this one, to say nothing of the very large number of mediæval churches which have no refinements at all; third, we urge the point that the study of perspective illusions enables us to prove that optical effects were considered by mediæval builders. Therefore this study helps us to prove, or consider possible, that other optical effects of a different character and more "legitimate" or more subtle nature were also practised; the demonstration for perspective illusion is the opening wedge, in other words, to a farther and more intimate study of mediæval building. For instance, in the Pisa Cathedral we find a vast number of phenomena which must be conceded to exist if the perspective illusions of that cathedral be conceded. In fact, these illusions themselves are of so subtle a character in that building that their success is their own justification.

Here, however, Mr. Prior is elusive (if not illusive): "Though he throw a dozen (churches) to the wolves, he may still escape with an example which is of such undoubted designed irregularity that it may rightly be called a refinement. This position must be left unassailed. Being unable to go myself and see St. Mark's, Pisa, and Fiesole, I bow to the authority of those who have seen." This would seem to be a sensible and amicable conclusion, if not carried too far. For instance, it might have prevented Mr. Prior from writing any adverse review whatever of an exhibition whose strong cards were drawn so largely from an Italian pack. And this would have been a pity, because I could not have answered Mr. Prior in that case. Still, one cannot help noting that this "bow to authority" winds up later on with the conclusion that Mr. Goodyear's "gospel" (about the Italian churches which Mr. Prior hasn't seen) is "foolishness to the craftsman." This is certainly a conspicuous fly in the ointment and solace which might otherwise be found "in a position which must be left unassailed."



Mr. Prior suggests his terror lest Mr. Goodyear "think this all a captious, carping way of presenting his discovery to the public." To this I can only answer that I find Mr. Prior's review very charming and fully equal to Mr. Gilbert's librettos. There is one improvement to be suggested in it, and I admit that the suggestion is a selfish one. I should have liked the review better if the passage about the wolves, which says that "this position must be left unassailed" and that the reviewer "bows to the authority of those who have seen," had concluded the article. Then that other sentence which now ends the review, about "a gospel which is foolishness to the craftsman," might have been worked in at some less conspicuous point. One is so apt to remember the climax and so apt to forget what goes before. Not that I would forget it, but others might.

Following Mr. Prior's own method of reclassifying debatable points, we will now take up his "Class V.—*Masoncraft habits*," which opens with the following passage:

"The Edinburgh Exhibition shows how constant in mediæval building was the sloping backwards of piers and arch jambs, often with a slight curvature, and Mr. Goodyear claims this as an entasis based on the classic column.<sup>1</sup>

"He is able to show that in many of his instances the idea of the lean having occurred through thrust is not tenable, for it is to be seen at the internal angles, where thrust would not be felt.<sup>2</sup> The piers which have it have evidently been built to have this backward curve. Is this then an architectural refinement?

"His critics point to the fact that these vertical leans of pillars, etc., follow the backward slope of the wall, so that the entasis of the pier is really part of the batter of the wall. It is curious that Mr. Goodyear in all his investigations of leans never once uses this common word 'batter' . . . It does not, therefore, seem necessary to credit the builders of Amiens with some subtle constructive skill, nor am I much impressed at Mr. Goodyear's discovery that the 'Suisse' there and the 'Be-deau' know all about it."

In considering this passage we first draw the line at the word "critics." Let us abandon the plural and say "critic." No one but the genial Mr. Prior has ever said in publication (or otherwise, to my knowledge) that the quoted instances can be explained as nothing but a "batter." If I have not used this word it is because I do not

know, and do not believe, that the word "batter" applies to the facts in general or remotely covers them in any individual particular case. I have not only shown at Edinburgh, but I have also published in the Edinburgh Catalogue, as well as elsewhere,<sup>3</sup> the photographs which show the leans on both sides of the piers in the Amiens triforium, and this proves that they have no batter. I have no knowledge of any batter in the triforium or clerestory walls. The triforium wall at Amiens is nothing but a shell, less than 12 in. thick by personal measurement, and if it were proved to batter it would not explain why the piers of the nave have the vertical curves. There is no batter about these curves, and if there were it would not prove that they were not an æsthetic device.

It has to be conceded that the entasis was used in mediæval spires, in mediæval towers, in mediæval columns, and in mediæval pilasters: why then contest so desperately the æsthetic use of vertical curves in piers which are not pilasters? The contention that the entasis is only an optical correction must still concede the point that it is a refinement. Moreover, this contention shipwrecks on the frequent use of an entasis in Renaissance as well as in mediæval-classic pilasters. Within the limits of ancient Greek art the contention that the entasis is only an optical correction is a doubtful proposition which has been antagonized by the best authority.<sup>4</sup>

In a few years the mediæval use of the vertical curves will be universally conceded, and Mr. Prior's "batter" is a step toward such a concession on his part. His main anxiety is to show that all the demonstrated facts fall inside the lines of everyday probability and are allied to facts which are generally known. In this anxiety I heartily share. As soon as the facts are generally known the trouble will be over. It is only another case of the "not true" of one's earlier opponents and the "not new" of one's later enemies, which even Mr. Prior's good-tempered fairness has failed to avoid.

Wholly aside from Amiens it is an almost unknown occurrence to my knowledge that "the vertical leans of pillars follow the backward slope of the wall." This is an independent discovery which ought to be verified. The two individual instances in the cloister of S. Ambrogio at Milan and in the church of Notre-Dame at Chalons may be fairly thus described, but no other similar instances were illustrated in the debated exhibition,

<sup>1</sup> Not quite correct! The vertical curves are thought to be connected with the mediæval entasis, and the mediæval entasis is held to be what it undoubtedly is, a survival of the classic. The horse-shoe divergence in straight lines is found as an independent phenomenon, as well as with the curves.

<sup>2</sup> This demonstration was offered for the interior transept

angles in St. Mark's, and for the Court of S. Ambrogio at Milan.

<sup>3</sup> *Architectural Record*, November, 1904; and "Memoirs of Art and Archæology of the Brooklyn Museum," No. IV. (Macmillan).

<sup>4</sup> "Dictionary of Architecture," published by the Macmillan Company, 1901, edited by Dr. Russell Sturgis.



and no others are known to me. The significance of these instances lies in their relation to the naves of the churches with which they are connected and in which the same system of widening (or horse-shoe form of construction) occurs, without any batter whatever. In S. Ambrogio at Milan, especially, the piers of the nave lean outward, from the pavement up, with a total divergence of one foot, under conditions which are impregnable as regards thrust, and without batter. On the other hand, to claim that the entasis in the pilasters of the cloister of S. Ambrogio or on the aisle wall of Notre-Dame at Chalons has any other explanation than that these pilasters are palpably derived from classic forms (in proportions and capitals as well as entasis) is an unreasonable scepticism. In Italy, at least, mediæval columnar forms with entasis, both engaged and free-standing, are so easily instanced that scepticism on this head merely gives one confidence that some modern critics have still something to learn, and perhaps in more than one direction. Having devoted to this subject an entire article in the *Architectural Record*, which is quoted in the bibliography of the Edinburgh Catalogue, it is unnecessary to waste more space on it here.<sup>5</sup>

Where the widening effect is obtained in side aisles by the outward lean of the responds facing the transverse walls of chapels which adjoin these aisles, the construction may properly be described as a batter, but to give it this name does not alter the fact that is the means of obtaining a widening effect which is elsewhere obtained by construction without batter. The facts have to be covered by an explanation which applies to all the phenomena. In S. Mary Diaconissa, at Constantinople (where there are no vertical curves), the phenomena, from the pavement up, are produced by a battering construction, but this only verifies the contention that the phenomena are constructive.

The battering in this church, as in St. Mark's, is such as to produce vertical bends which have the effect of curves. Utilitarian battering in the form of bends is an unknown construction.

In the upper walls of the nave of St. Mark's the term applies; but, if so, it again verifies the contention that the vertical bends are constructive. The supporting piers have no batter, but their divergence has also been measured and published. The crucial fact in St. Mark's is that there is a total divergence of not less than 33 in. through-

out the nave, as between the bases of opposite piers and the springing of the transverse arches. If this divergence were due to thrust or movement it would have involved fissures in all the domes of more than eight feet in the lower circumference of each dome, because the circumference of the dome is three times its diameter. It is certain that such enormous fissures have never existed, to say nothing of the fact that an accidental divergence of 33 in. would involve the downfall of the vaultings. To concede that the divergence is partly obtained by constructive battering is to concede the whole contention for St. Mark's.<sup>6</sup>

Finally, if the exterior main door of St. Mark's be examined it will be found to have the same horse-shoe bend which is here produced by the constructive setting of the engaged columns. These are not exposed to thrust, and are leaned against walls which have no batter. Altogether, if it were not for Mr. Prior's high reputation, his choice of a term which does not cover the facts would not even require mention, and it is quite certain that his suggestion that the mediæval vertical bends and curves are a form of utilitarian batter can never be seriously considered.

There are also evidences of haste in his examination of the exhibits for St. Mark's. For instance, he says: "The setting back of pillars on an upper storey behind the line below, as at St. Mark's, is also a mason's expedient to prevent the edges of his strings being flushed off. But such possibilities do not enter into Mr. Goodyear's argument for his refinements." If this reviewer will again examine my published photographs or my published measurements he will find that the stepping back of two inches in St. Mark's is confined to the south side of the nave. It does not hold on the north side, and is consequently immaterial from any point of view. If he examines my publications he will find it quoted simply as a matter of record, and I have not mentioned any other instance of such setting back in any other church.

There is mention under this same heading in the review of a number of photographs which show the stiling of arches, and this is held to be a constructive expedient. Of course I have never suggested the contrary. All photographs published or quoted in this connection bear on divergences, horse-shoe bends, and vertical curves below the capitals, whereas the term "stiling"

<sup>5</sup> *Architectural Record*, vol. vii, No. 1, 1897.

<sup>6</sup> The arch of the Apocalypse, twice published in the *ARCHITECTURAL REVIEW*, does not support the adjacent dome, and the vaulting arches which support the latter are not depressed. The best photograph of the depression of the Apocalypse arch is that made from the choir, because this shows that the vaultings which support the adjacent dome are not depressed at the crown.

Such a photograph was made by me in the summer of 1905, and exhibited as an enlargement at Edinburgh. Manfredi's photograph, as published in *THE ARCHITECTURAL REVIEW*, does not show at all clearly the separation between these two vaultings which abut one another, but close inspection of the photograph still shows how the vaulting on the near side of the first dome rises with undepressed crown above that of the Apocalypse arch.



applies only to the arch above the supporting capital.

Mr. Prior's general remarks under his "Class II.—*Settlement*," must meet the approval of all experts in construction, but in considering the application of these remarks to my observations he not only forgets to bow "to the authority of those who have seen," but he raises objections so easily answered that one can only be grateful for the opportunity to set him right.

For the vertical curves at Vicenza I am quoted as follows: "He remarks that the side walls of the chapels abut the transverse vault arches, and that therefore no outward thrust was possible. This, of course, is true if the said walls were built before the vaulting, but if between the chapels they were of a subsequent building by even six months later than the vaults, the elimination of thrust is not so clearly demonstrated. The catalogue does not clear up this particular point." The catalogue does not; for the simple reason that a vaulting can never be put up in advance of the original buttressing construction, which in this instance wholly consists of the aforesaid chapel walls and is confined to them. I am glad to be able to supplement the catalogue in this particular by citation of the printed history of the church which is sold in the sacristy of the cathedral, and which specifies the precise year of the building of each chapel, and which specifies the precise decade of the subsequent construction of the vaulting. It is not often that accounts are so specific, but I must say that they do not appear to be at all needed in this instance. The vaulting is of so great a span and of such relatively low height and crown that an aisle construction with flying buttresses could not be imagined as ever having been contemplated in this church, even if there were no records. Moreover the Italian Gothic is well known not to affect that style of construction. Wholly aside from the records there is no church in Italy where the relation of resistance to thrust has more clearly been planned in advance for the given conditions.

Another passage under "Class II.—*Settlement*" reads as follows: "In the faces of such churches as St. Mark's, or the Duomo of Pisa, cased with marble upon a core of rubble, we would not be likely now to see the dislocations that took place in the original core of the walls. I cannot, however, find that Mr. Goodyear meets this point against him by telling us distinctly that the marble casing in these cases was part of the first construction. He certainly gives us the certificates of architects, but they are far from conclusive on this particular point." To this we answer that these certificates are neither lawyers' briefs nor architectural arguments. They are statements by

engineers who were thoroughly familiar with the given buildings, and as little disposed as myself to overlook elementary considerations. The casing of St. Mark's only rises to the height of the galleries. The problem of the curves in elevation begins at the gallery parapets. The high antiquity of the casing is undoubted, but the levels taken in the galleries offer an independent demonstration. The certificate says that "the occurrence is too uniform to be considered as merely accidental." I am not aware that Commendatore Saccardo, who gave the certificate, laid any stress on the casing. The levels were taken after he wrote the certificate.

The problem of the horse-shoe construction in St. Mark's is not affected by the casing below the galleries, and above the galleries there is no casing. Both parties to the argument are agreed as to facts of inclination and divergence. (If the walls of St. Mark's are battered the argument ends.) The reviewer has himself also quoted as conclusive the measurements in the transept angles of St. Mark's, as follows: "He is able to show that in many of his instances the idea of the lean having occurred through thrust is not tenable, for it is to be seen at the internal angles where thrust would not be felt." I have already pointed out that the advocates of thrust in the upper nave of St. Mark's must admit that fissures occurred, and have been repaired, in the circumference of each dome, to the amount of over 8 ft. in every dome; to say nothing of the question whether vaultings can spread 33 in. without totally collapsing.

We come then to the question of casing as affecting the Pisa Cathedral. Here again Mr. Prior's knowledge of the building is at fault. The thin slab casing of St. Mark's was undoubtedly applied to walls which were an independent construction and able to stand without it, but the marble blocks at Pisa are solid masonry belonging to the body of the wall, which could not have been built without them. They are not thin overlay like the casing of St. Mark's or the Florence Cathedral. Moreover no one who has ever carefully examined my measurements for Pisa could suppose that there are any problems connected with the core of the walls as distinct from the surface. Whatever happened to the core of the walls the problem is to explain the visible masonry as affected by accident, and that no one has ever succeeded in doing. More than that, no one has ever attempted it. If it were attempted it would require an analysis and quotation of measurements as careful and as comprehensive as those which I have published, before the question could even be debated.

Baron Henry de Geymüller, the architectural editor of Burckhardt's *Cicerone*, wrote me in 1903 to express his acquiescence in the demonstration



offered by my measurements of the walls at Pisa as to the constructive facts.<sup>7</sup> This letter was written without knowledge of the certificate of the architect in charge, which appeared in a later publication than the one which Baron de Geymüller had consulted.

The remarkable features shown by the levels of the great exterior string-course at Pisa are undebatable as constructive facts. It would be most amusing were anyone to suggest the contrary. Even hypothetical explanations outside of my own have never been offered, and the facts were notoriously unknown, and could not be known, until the levels were taken.

Under "Class II.—*Settlement*" we find again the following passage: "When Mr. Goodyear says any movement in vaults at Amiens or in walls at Notre-Dame has been impossible because no cracks show, we can accept his conclusion as final only if we accept his philosophy altogether." Here again Mr. Prior has not understood the proposition, and no passage from the Edinburgh Catalogue, or otherwise, can be quoted to verify the alleged statement on my part. I have nowhere said that no cracks show at Amiens. That is not the question, although I believe it to be true, as a matter of fact, for the nave vaulting. I have said that the total divergence throughout the whole length of the nave is 34 in. when the width between piers at the capitals is compared with the width at the bases. I have said that the vault has not settled at the crown, and have taken photographs at a high elevation which establish this assertion. I have also said that the vault would have fallen if the clerestory walls had gone apart 34 in. by accident. However, if Mr. Prior holds that the triforium walls were battered at Amiens and that the piers curve out to follow this batter as already noted from his text, it does not appear why he should discredit his own hypothesis by ascribing to me statements about fissures in the nave vaulting at Amiens which I have never made, and for which no reference to publication can be given.

My position in the matter of cracks in the walls of Notre-Dame is not clearly presented by Mr. Prior, but in order to explain this I must tell a little more of the story than he does. The tower piers of Notre-Dame lean west, respectively 16 in. and 12 in. in a height of 80 ft., and the existence of these leans appears to be quite unknown to the experts of Paris. (I have suggested that this is a

device tending to constructive stability and intended to forestall that thrust against the thin vaulting of the nave which the great weight of the towers would tend to produce.) The interior masonry of the first three bays of the clerestory walls is laid in courses which are normal to the lean, and slope down to meet it at a right angle, and this proves that if a settlement took place it began where the slope of these courses (away from the tower piers) is arrested, viz., between the third and fourth bays. At this point on the north side there must consequently have been a fissure of 16 in. at the top of the clerestory wall on the theory of settlement. Now what I have said is this: that there are no signs at this point of the repair of a fissure of 16 in. or of any fissure whatever, and I have exhibited detail photographs of large dimensions which show the cutting of every individual block in a long series of wedge-shaped blocks by which the sloping masonry courses are brought to a horizontal. Similar demonstration has been offered for the non-existent fissure of 12 in. on the south wall.<sup>8</sup> Therefore Mr. Goodyear does not exactly say that "any movement in walls at Notre-Dame has been impossible because no cracks show." He said that for a given point where cracks (of 16 in.) or the traces of their repairs ought to show, he exhibits large photographs of walls and their masonry courses on both sides of the church for a space of three bays, and that a constructive arrangement of masonry courses normal to the lean of the tower piers is shown by the cutting of the blocks of masonry which are all individually seen in these photographs.

In the matter of mediæval horizontal curves in plan, hasty examination of exhibits, hasty reading of the Catalogue, and oversight of several other publications are apparent in the remark about the cloisters at Verona and Bologna. Mr. Prior says, still under his "Class II.—*Settlement*": "I have found curves similar to those of the cloister at Bologna in a whole series of backyards in London." Now, if these backyards show curves beginning at the foundations, and all convex to the centre of the court, and on all four sides of the court, the remark is pertinent, otherwise it is the contrary. As Mr. Prior would say, this fact about the backyards in London should be clearly stated. In default of photographs it almost needs a certificate. The contention for Bologna is that curves due to careless construction would not all be convex to the centre of the court, and that

<sup>7</sup> As published in the *Architectural Record*, Vol. VII., No. 3, for 1898. I have given a careful account of the modern repairs of the walls at Pisa in this article, which is quoted in the bibliography of the Edinburgh Catalogue.

<sup>8</sup> This construction is again related to that of the gallery bends in elevation for which other explanations may probably

be invoked, as considered in detail in my publications. The photographs showing the masonry cutting of every block in the wall at the given point have been published in the *Architectural Record* for December, 1904. As the topic of the gallery bends in elevation is not debated by Mr. Prior I will also pass it by.



curves due to thrust would not begin at the foundations. Mr. Prior continues: "For example, as to the cloister walls at Bologna and Verona, which have an outward curve in plan—such as has an extraordinary resemblance to that produced by thrust, for they are on upper storeys—he remarks that there were no vaults to produce such a thrust. But wood ceilings and roofs, as well as vaults, can push out walls in this fashion, and we are not told that there are neither floors nor roofs."

Now the photographs and published descriptions show that *there is no upper storey* in the cloister at Verona, and that the curves begin at the earth's surface and at the foundations of the parapets. The absence of an upper storey also appears in the Catalogue illustration. The Catalogue description for Bologna says "the curves are uniform on all sides of the court *and they begin at the foundations.*" Attention to such details is very necessary in the examination and discussion of the evidence offered at Edinburgh, and it may be that the Scotch architects, who had a better opportunity than Mr. Prior to examine these details, may have reached a different verdict for that reason.

We come now to Class IV.—"*Misfittings of work where alteration or stoppage of building has occurred.*"

Aside from the cloisters just mentioned Mr. Prior's article omits mention or discussion of any curves in plan excepting the return curves (elongated S shape, or "Hogarth's line of beauty") at Fiesole. He explains these by his own theory of the origin of the deflected choirs of northern Europe, but he has the good sense to add, "Until I have been to Fiesole, Troja, etc., and seen for myself, my conjectures lack substance."<sup>9</sup>

Thus abandoning the problems offered by perspective illusions and the vertical curves, bends, and widening of horse-shoe form in construction, we will take up Mr. Prior's argument on the subject of deflected plans, but it will be noticed that we have reached this topic by way of his somewhat hasty and confessedly inexpert treatment of the problem of curves in plan, and our reason for following this course will presently appear.

It is Mr. Prior's opinion that the bends and deflections of plan in northern cathedrals are partly due to the frequent stoppages of work, often for long periods of time, and partly due to the habit of treating the choir, or portions of the

nave, as a temporarily finished building, walled or screened off from the uncompleted parts of the nave. In such instances a careless orientation of the façade or the difficulty of sighting from the finished to the unfinished portions of the church are presumed to account for such deflections.

It is now our first effort to point out that the leading authority of all modern time on French Gothic may be presumed to have had some knowledge of the conditions described by Mr. Prior. That authority was Viollet-le-Duc. In his famous Dictionary we find the following passage on the asymmetric plan of the cathedral of St. Denis:—

"These refinements (*délicatesses*) appear strange to us nowadays, and rather than search out their meaning or verify the resulting effects we prefer to attribute 'these defects of planning' to the ignorance of these ancient artists, in spite of the fact that we are ready to marvel next day at no less important irregularities as noticed in the monuments of Greek antiquity, irregularities which are the result of optical considerations (*besoin de l'œil*) and of a very delicate appreciation of perspective effects."<sup>10</sup>

In face of this quotation Mr. Prior will probably admit that his explanations did not apply to all northern plans in the opinion of Viollet-le-Duc, and as he is ready to admit his incompetent knowledge of the Italian plans it would appear that the debate on this particular subject might close with the suggestion that Mr. Goodyear's "gospel" in this particular was not "foolishness" to Viollet-le-Duc. Has Mr. Prior possibly overlooked the above passage in the Dictionary, which he frequently quotes in his own works?

Viollet-le-Duc continues: "Such a method required, it is true, a very complete practice in geometry, not only on the part of the master-mason but also on the part of the workman—but it will probably not be suggested that a knowledge which was pushed so far by the master and so easily understood by his assistants has ever been an indication of ignorance or of barbarism."<sup>11</sup>

In the continuation of this reply to Mr. Prior's review I shall give careful consideration to his views on northern mediæval plans, and shall explain my own observations as to certain mediæval plans in Italy. WM. H. GOODYEAR.

(To be continued.)

<sup>9</sup> There are no curves in plan or otherwise at Troja.

<sup>10</sup> "Ces délicatesses nous paraissent étranges aujourd'hui, et plutôt que d'en chercher le sens ou d'en constater les résultats nous préférons mettre ces défauts de plantation sur le compte de l'ignorance de ces artistes anciens, quitte à nous émerveiller demain devant des irrégularités non moins importantes signalées sur des monuments de l'antiquité grecque; irrégularités qui sont le résultat d'un besoin de l'œil et d'une très-déli-

cate appréciation des effets perspectifs."—*Dictionnaire IX.* p. 203.

<sup>11</sup> "Une méthode pareille exigeait, il est vrai, une pratique très-complète de la géométrie, non-seulement de la part du maître, mais aussi chez les metteurs en œuvre; . . . mais on ne prétendra pas, probablement, que ces connaissances, poussées très loin chez le maître et facilement comprises par les aides, aient jamais été une marque d'ignorance ou de barbarie."—*Dictionnaire IX.* p. 204.

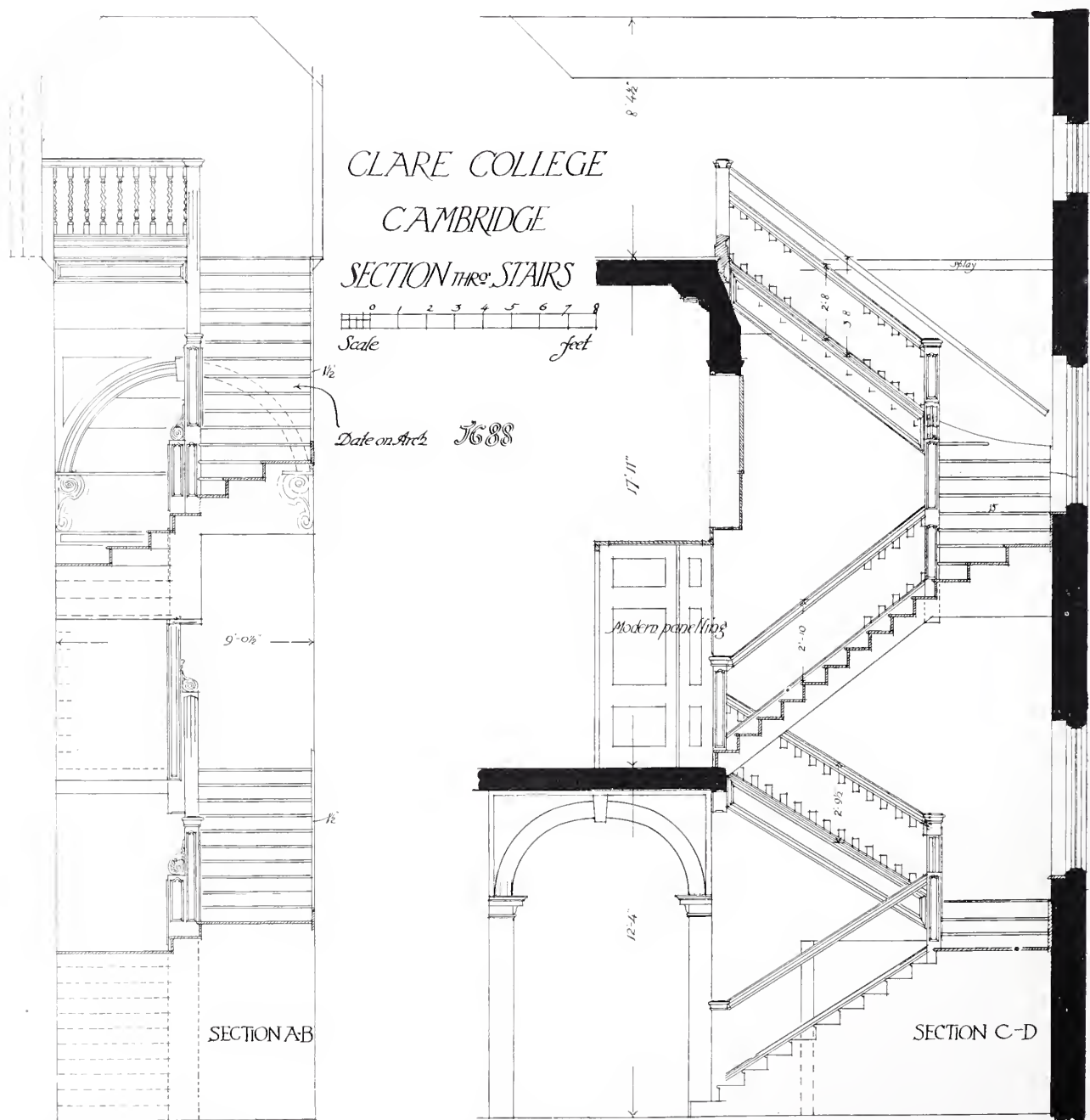


# The Practical Exemplar of Architecture.

## V.—Staircases.

THE staircase at Clare College was probably designed as the staircase to the library. It now leads to the combination room, which opens into the library. It has similar details to the screen in the dining-hall, from the gallery of which it is cut off by a modern panelled screen. The newel between the first and second floors is the finest example, but, unlike the one illustrated, is built up of two pieces; it was, however, impossible to obtain a good photograph of it.

Whitton Park, Staines, is one of those numerous interesting houses in the suburbs of London now fast disappearing. A hundred years since the residence of a wealthy man, it has gone through various vicissitudes, including that of a golf club-house, to be eventually ground into mortar by the relentless jerry-builder. A scheme is on foot to convert it and the grounds, if possible, into a public park and museum.

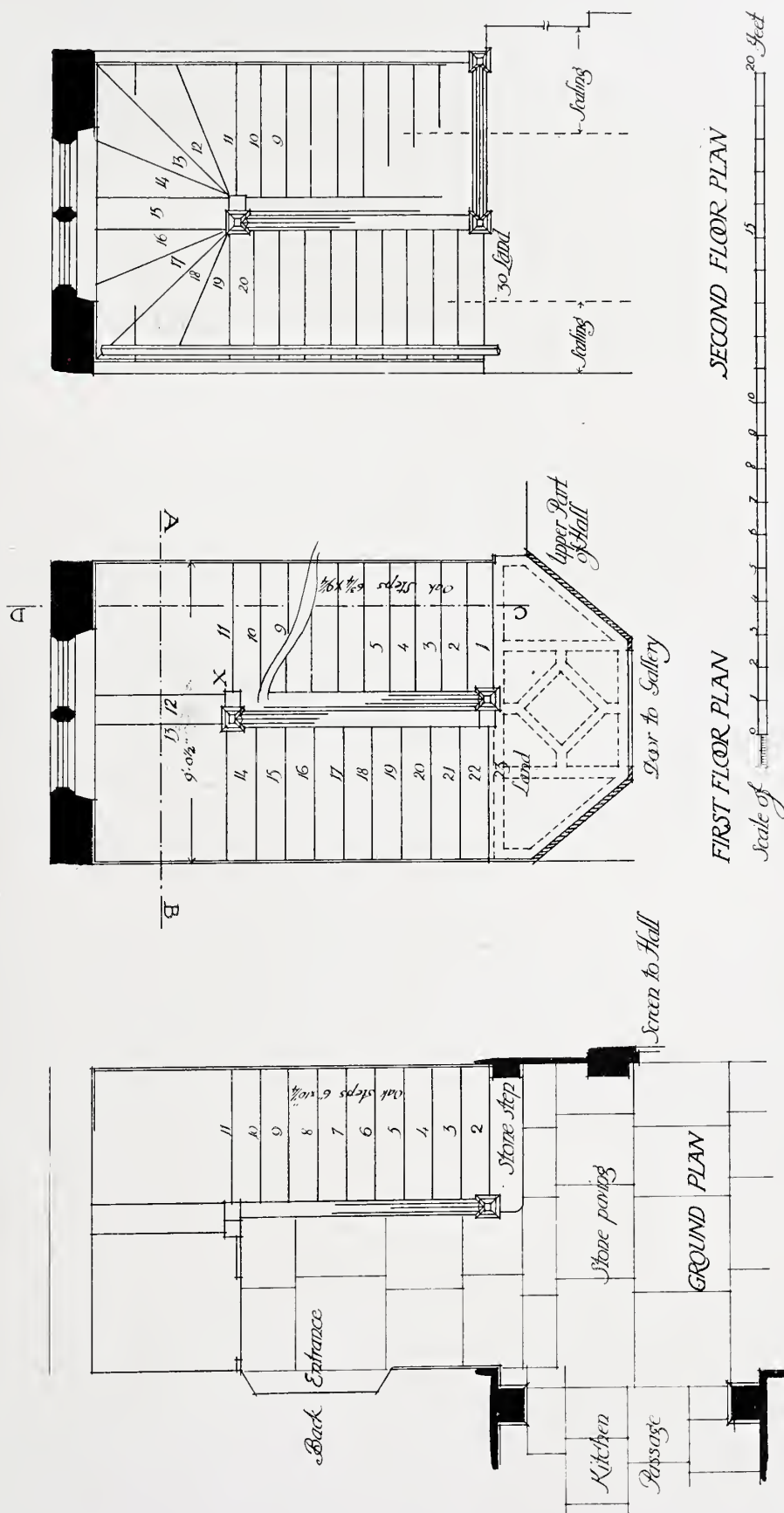


MEASURED AND DRAWN BY G. H. PARRY.



CLARE COLLEGE CAMBRIDGE

PLAN OF STAIRS TO LIBRARY



MEASURED AND DRAWN BY G. H. PARRY.



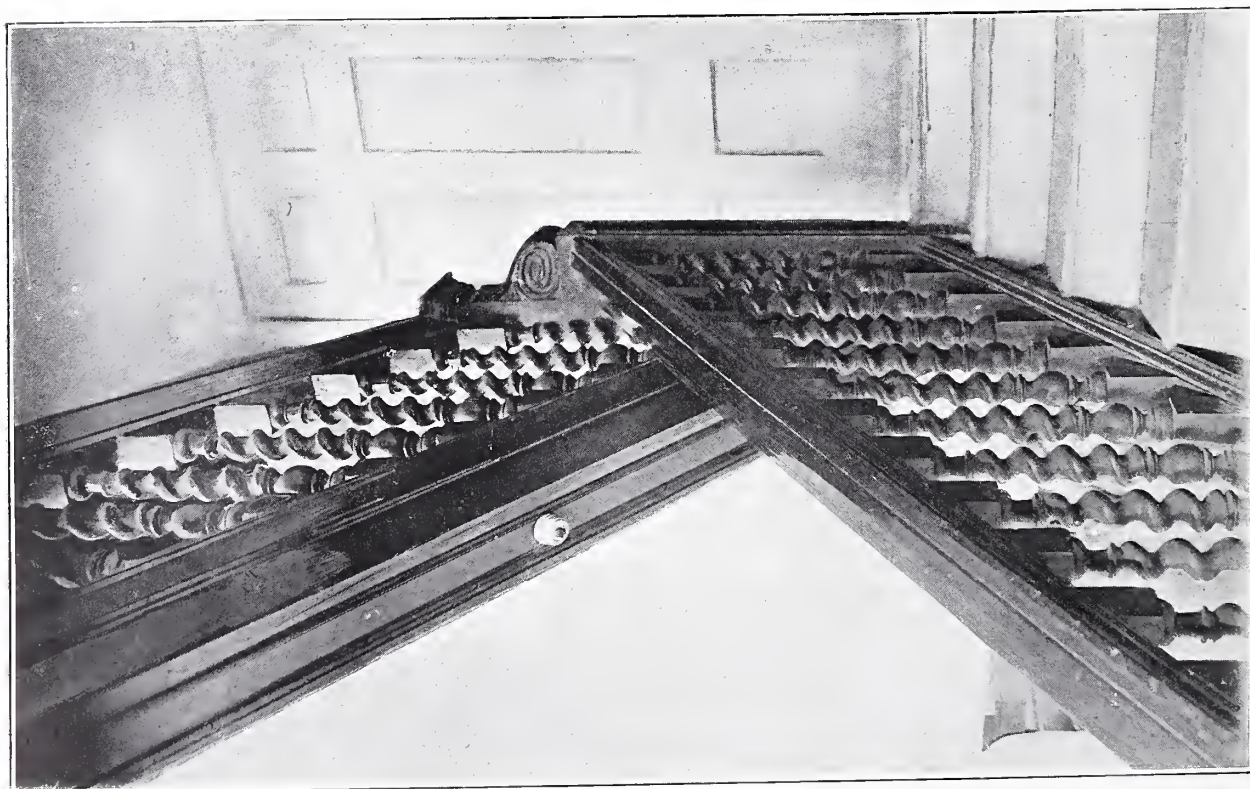


Photos: G. H. Parry.

Newel post.

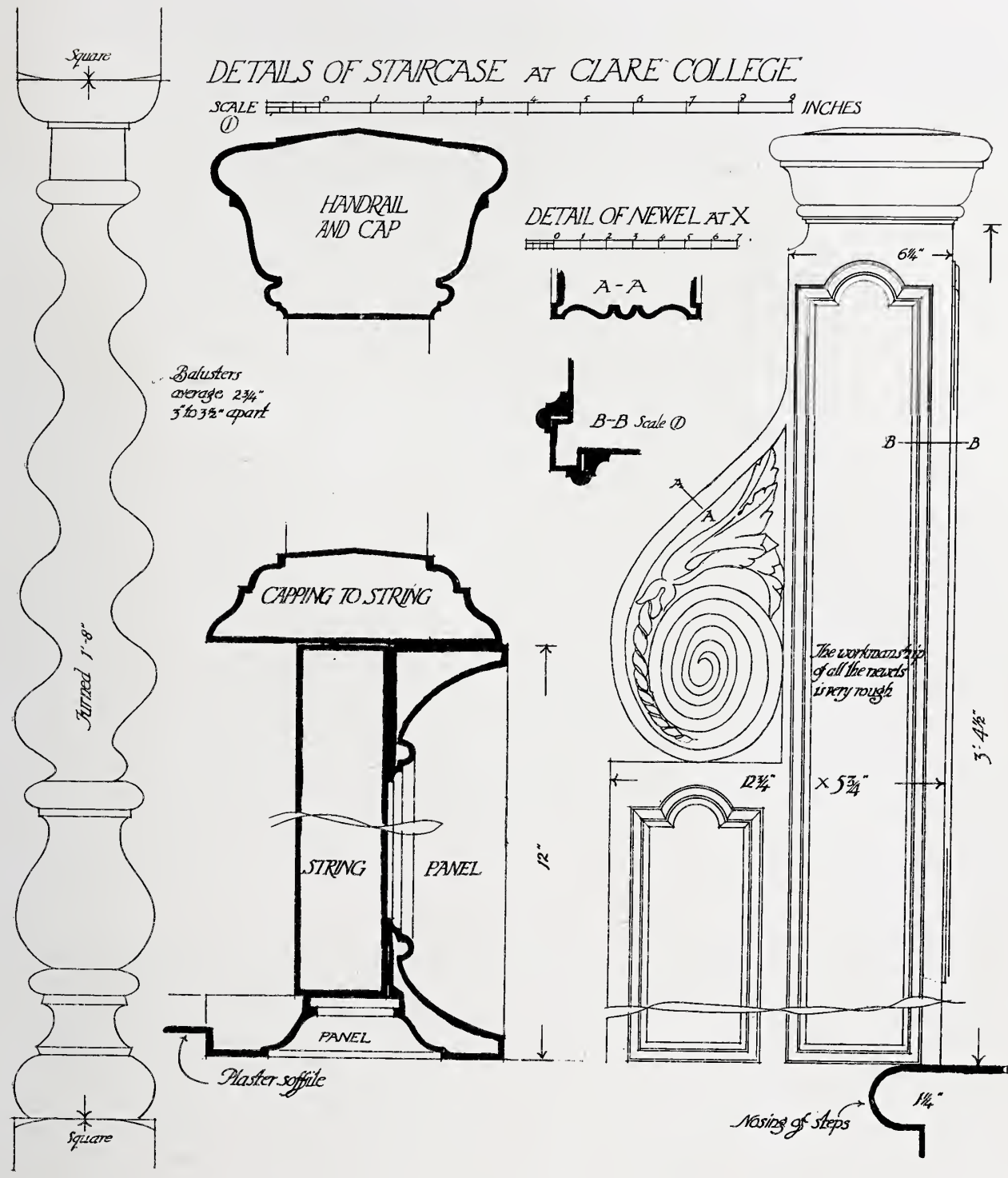


Arch over between first and second floors.



General view.  
STAIRCASE AT CLARE COLLEGE, CAMBRIDGE.

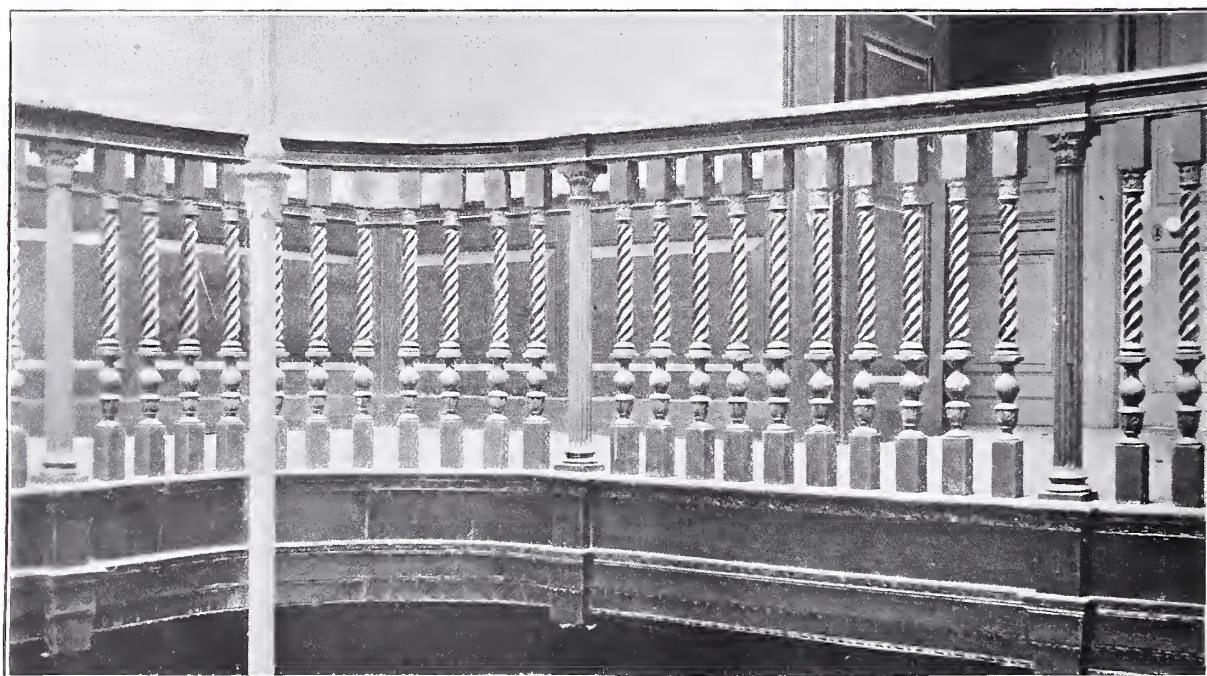








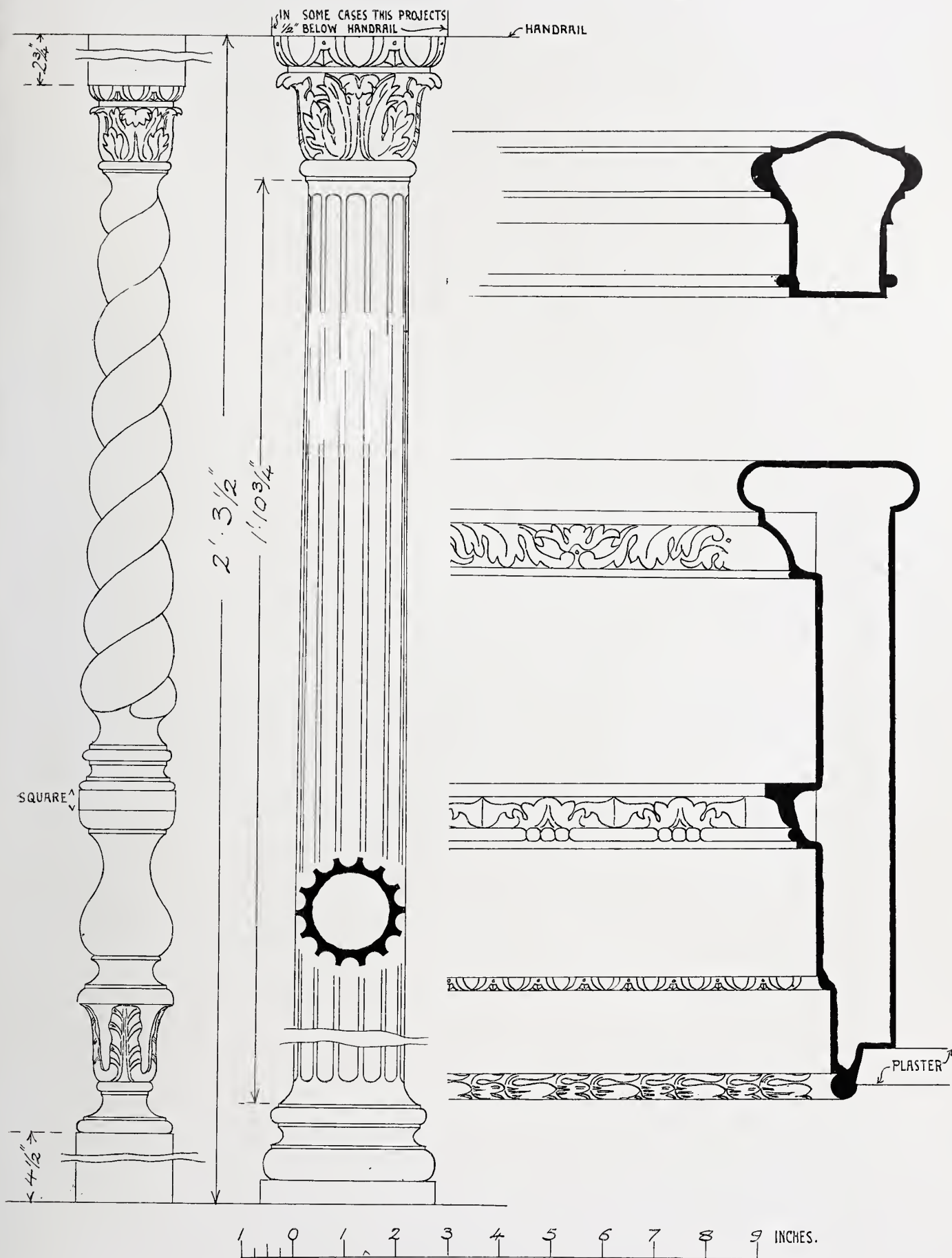
General view from ground floor.



View on top gallery.

*Photos: Arch. Rev.*

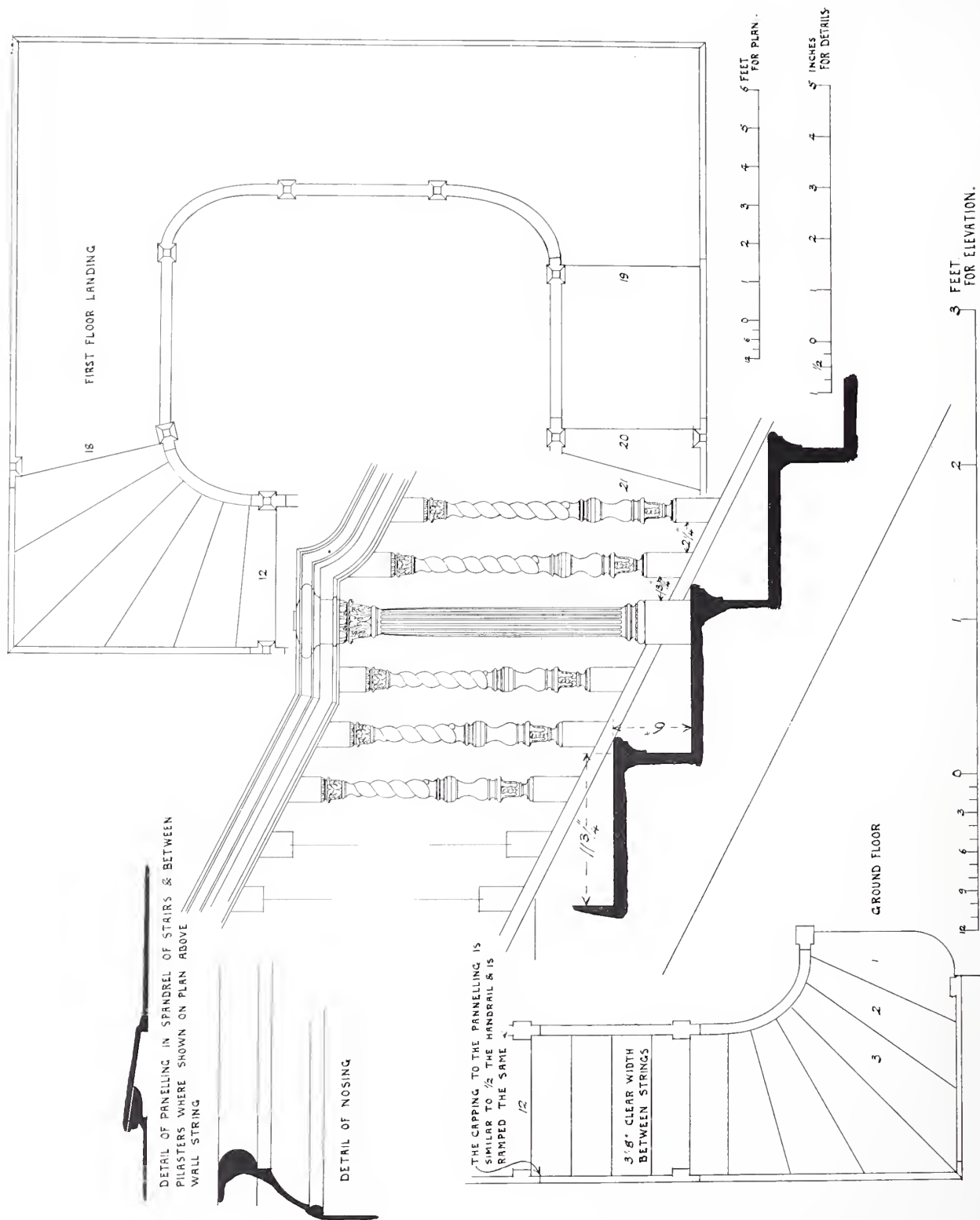




STAIRCASE, WHITTON PARK, HOUNSLOW.

MEASURED AND DRAWN BY FRANCIS BACON, JUNR.





STAIRCASE, WHITTON PARK, HOUNSLOW. DETAILS.  
MEASURED AND DRAWN BY FRANCIS BACON, JUNR.



# The Milan Exhibition.—III.

## The Exhibits in the Decorative Art Sections.—*Conclusion.*

"FIRE has destroyed the most delicate portion of the great exhibition. Our dainty laces and ethereal embroideries, our furniture and pellucid things of glass; our iridescent pottery: all these, all the filmy creations of the weaver's loom, all that is by nature fragile of human craftsmanship, has perished in a single night, reduced to ashes and nothingness. It is unjust that the flames should choose to struggle with these poor, beautiful things; they found them docile, prepared to die at the first scorching breath. All who have seen and cared for them will love them more, because their beauty lay in their frailness; and because they were beautiful they have perished. There was a something of woman bound up in their charm. The other exhibits grow virile, powerful, and rough things by comparison. Perhaps the fire knew, and chose."

Only an Italian journalist could rise to such heights of poetry in describing the great disaster which has overtaken the Exhibition at Milan. But he could not hope to describe the feelings of a "Special Correspondent," who in the middle of preparing his notes for publication wakes up on a fine morning to see his work literally crumbled to ashes. The Italian Art Section, which on August 2

last was the admiration of many, was on the following morning a blackened patch of ground over which excited officials scrambled; the optimists talking of reconstruction and the pessimists gloomily arguing that the vacant plot ought to be planted with flowers and shrubs.

It seems as though the world refuses to learn by experience. The terrible destruction of the Chicago World's Exposition by fire in 1893 must have been fresh in the minds of the committee, and Italy has herself suffered similar losses, both at Genoa in the same year and at Como in 1899, when many valuable records of Volta perished. In the last article we remarked that a valuable lesson might be learnt from Italy in the methods adopted for the preservation of ancient monuments: but of a truth we are compelled to add as a corollary that Italy may learn something from us as to the protection of modern buildings! The total force of the Fire Brigade was on the spot as soon as possible, and we note that the number of steamers was four. This is not a lavish provision for a city containing more than 380,000 inhabitants. From the details to hand it appears that great faith was placed in the efficiency of the grenades; and yet it happened that the fire was out of hand



THE FIRE AT THE MILAN EXHIBITION.

ENTRANCE TO THE FINE ARTS BUILDING ON THE RIGHT.

Photo: A. Croce.



before it was discovered, and that those who did subsequently contrive to gain possession of these appliances could not approach close enough to employ them.

Leaving out of consideration for the moment the loss of many examples of modern art specially prepared for the Exhibition, and of which, as far as is possible under existing circumstances, it is the object of the present article to treat, the number of valuable records which have been swept away by the conflagration is very large indeed. It will be remembered that in the architectural building were housed all the documents and models sent by the various district offices for the preservation of historic monuments, and now they are all destroyed. The photographs, perhaps, may be replaced without much difficulty, but it will be hard to reproduce the drawing of such works as the restoration of the Palazzo Ducale at Venice. Not only this, but many of the designs were for works waiting to be commenced until such time as the necessary funds should be forthcoming. The models of the Palazzo de Giustizia, by Calderini, at Rome, the Palazzo della Cassa di Risparmio at Pistoia, and the great model of the monument to Vittorio Emanuele II at Rome, which stood in a room by itself, and even at a scale of  $\frac{1}{25}$  full size occupied over two hundred feet of floor space, have all vanished. Among the drawings destroyed are those relating to the reconstruction of the Campanile at Venice, and the proposals for the restoration of the vaults known as the "Apocalypse" and the "Paradise" in the Basilica of St. Mark. Those for the Library of Sansovino similarly are gone; and the scheme for the restoration of the Castello Sforzesco at Milan no longer exists. But most important of all, and such as to constitute the greatest loss, is the destruction of the exhibit of the Basilica del Duomo. "In it there were the schemes for the decoration of the vault of the greater nave in graffito, a full-size piece showing the new marble paving (copied from the older portions), one or two valuable fragments of painted glass, and above all the most important of the schemes for the new façade, from the two prepared by Brentino in 1887 and 1888 down to those drawn up by the Commission of the Fabric of the present day." This list does not include much that was of interest and archæological value. The signed contract drawing for the front, dating back to the sixteenth century, must be now no more than a cinder; and the marble pinnacle taken from the old work and set up as a model is but a handful of lime!

But enough has been said about the disaster which has snatched away the Italian Decorative Art building while there still remained very much to be done for the completion of this article, which,

as fate has willed it, is chiefly concerned with what no longer exists. This article must now be *in memoriam*.

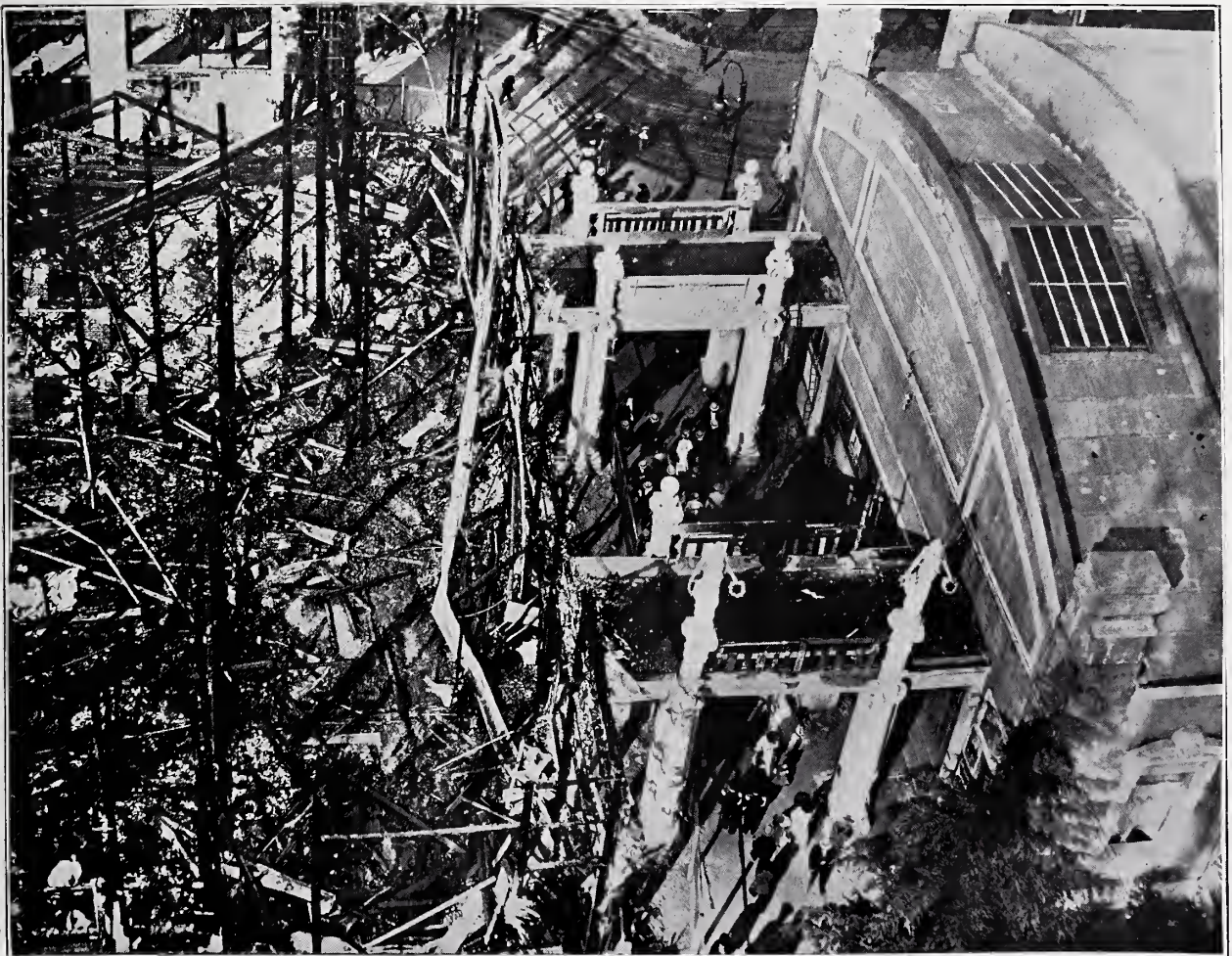
The futility of international exhibitions as arranged on the lines of those of recent days was never more fitly demonstrated than it is in the sections at Milan more closely concerning the work of the architect and craftsman. The architectural exhibit has ascended to the heavens in a pillar of fire; and all that spoke of the sudden expansion and development of the "stile moderno" in Italy has followed in its wake.

As the Exhibition included in its scheme abundant evidence of Italian progress in the new art, it was, perhaps, unreasonable to hope that there would be included with the Scuola di Prospettiva Scenografica—the only exhibit, by the way, which escaped the general destruction—some information as to the course of study through which an architect in Italy has to go before he can be considered qualified. If our memory serves us, the late Mr. Arthur Cates in his valuable series of papers on the training of architects in various countries did not deal with the system in vogue in Italy. We are therefore left in the dark as to the curriculum; and, like the trees in the parable, the architect must be judged by his fruits. All that we are—or, rather, were—allowed to gather was that a house is practically the joint work of two individuals, the first of whom prepares the plan and settles the constructional difficulties, while the second is he who clothes the skeleton with appropriate decorations. In fact Italy has had to face the same difficulty as we have, that of the overlapping of the two professions of architect and engineer. As a consequence the architect, understanding the whole mystery of construction and versed in the sacred rites of the styles, is unknown. Like England, Italy has the *architetto* and the *ingegnere*; but, taking the training of an English architect as a standard, to call him *architetto* is to call him something less than he actually is, implying that his knowledge of materials and construction is, at most, superficial; while to call him *ingegnere* is to endue him with powers of construction which he does not possess, and at the same time to deny him any claim to the artistic side. All branches of construction are held to concern the engineer, and the engineer alone; it is not enough that the would-be designer of houses is anxious to know his building construction and materials thoroughly well. He has to know all that our own engineers know, and a great deal more besides. On one board he may be scheming the water supply of a large town, and on another will have set out a harbour or floating dock. With all this he has little time to devote to struggling with the styles,





The Court of the Hungarian Building.



The Picture Gallery on the right, saved.  
THE FIRE AT THE MILAN EXHIBITION.

Photos: A. Croce.



so that there is plenty of room for his collaborateur, who, leaving alone the engineering course—or merely playing with it—devotes his whole attention to the study of architectural design. He does not confine his attention to architecture alone; you find him engaged in making designs for furniture, and even for stable fittings. The engineering course is fairly parallel with our own, but it would be a great pleasure if it were possible to say that our course of architectural design was as excellent as the Italian course.

The rock bottom of study for architectural design is the old battle cry of the Institute. "The first thing you must do is to learn to sketch; and the second thing is, learn to sketch; and the last thing you must do is, learn to sketch." And, though in the now vanished building there were no exhibits of students' work in Italy, the Hungarian sections were full of it.

It was in the really beautifully designed and decorated hall occupied by Hungary that the drawings were housed, and it contained a large number of mosaics, statues, and pieces of metalwork intended for buildings now in course of construction. The Industrial School of Design at Budapest, the National Hungarian School of Decorative Art, and the Normal School or Royal Hungarian Finishing School (*Istituto di Perfezionamento*) for professors of design, had all sent copious examples of their courses of study, and, as it were, have laid bare the very machinery by which Art Nouveau is produced.

The student begins with a light course of instruction in orthographic projection with shadings according to the rules of sciography; then he takes up a little building construction, and goes on to study architecture seriously. But not such architecture as suffices for us in our unambitious way. *His* architecture includes the wooden structures of Norway, the Temples of India and China, and the sun-dried brickwork of Yucatan. This seems to complete the preliminary course. He has then to wrestle with the consideration of ornament in relief, and he copies it in pencil, wash, half-tone, and black and white.

It would take too long, and serve to little purpose except as a record of so much work lost, to describe the whole course; but there is scarcely a thing capable of being drawn which is not made to yield its secrets to the student of ornamental design in Hungary. Greek vases, Persian carpets, and repeating patterns are attacked and mastered. Ironwork is studied in the forge and in the drawing office. The realm of nature is invaded and drawn in outline at first, then filled in and shaded: flowers, dead leaves, shells, beetles, animals, and butterflies in all their phases of movement (even portions of them drawn to a greatly

magnified scale and beautifully finished in colours). Then, in what we take to be the final stage there is a course in which what has been learnt is put into practice. All that has previously been drawn with the utmost fidelity to nature is again drawn, but conventionally and decoratively. And it is scarcely necessary to add that a session in anatomy and in the "life" school forms an integral part of the curriculum.

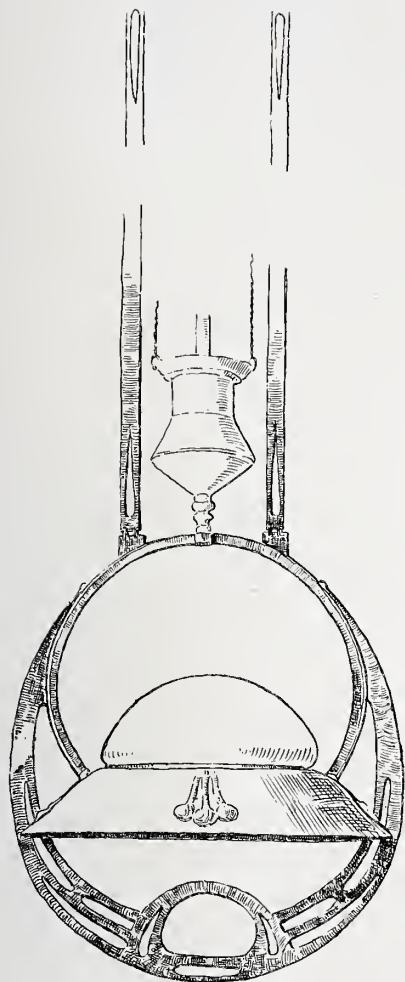
The fruits of such good sowing are abundantly reaped in the advantages gained by modern art. To walk and make notes in the Hungarian galleries was an education in itself. Now it has gone; gone even before the official photographer had bestirred himself to make his negative, and so the copy which had been ordered for *THE ARCHITECTURAL REVIEW* for nearly a month will never appear in these columns.

What we were permitted to gather before the catastrophe exclusively concerns metalwork. In this class the exhibits were peculiarly fine, and showed in a modified degree all the characteristics already noticed in the buildings. As a general rule the tendency is towards beauty of line for its own sake. In the work of the Italian artist-craftsman such lines need mean nothing; it is enough that the curves be graceful, and the designer is satisfied. In furniture small mouldings are bent into weird but graceful lines, and in the work of the goldsmiths and silversmiths the same effect is usually produced with inlays of enamel. In much of it one suspects too great a command of freehand drawing as the primary agent; it is as though the modern draughtsman were fascinated by his undoubted mastery over the whole world of form, as Bramante and his followers were by their command over the mysteries of perspective. But should the draughtsman elect to combine foliage or other natural objects with his curves he runs to one of two extremes. There is none of the staid and respectable conventionalism of old time in his work now. Either he adopts an exact and unartistic copy of the original for his stone, wood, or metal, or else it is more of a caricature than anything else that he produces. The Italian usually prefers the former. His horse-chestnut leaves, his vines—whatever it may be—are copied with relentless fidelity. Yet, when all that can be urged against his work has been said, it must be admitted that it hardly ever fails to please, and he has a rare knack for composition and "pattern."

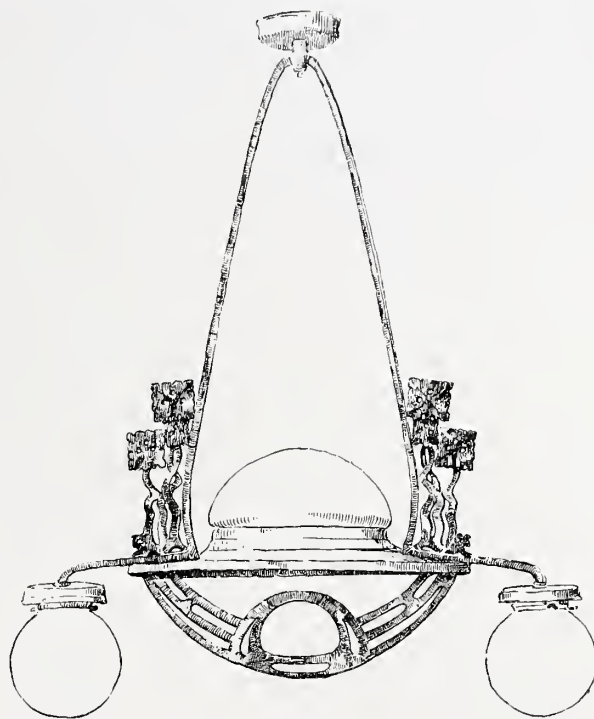
And in considering the very few illustrations which accompany this article, it should be borne in mind that these are but the preliminary notes which were in course of amplification when an unkind destiny swept away the originals.

Most deeply is it to be regretted that the

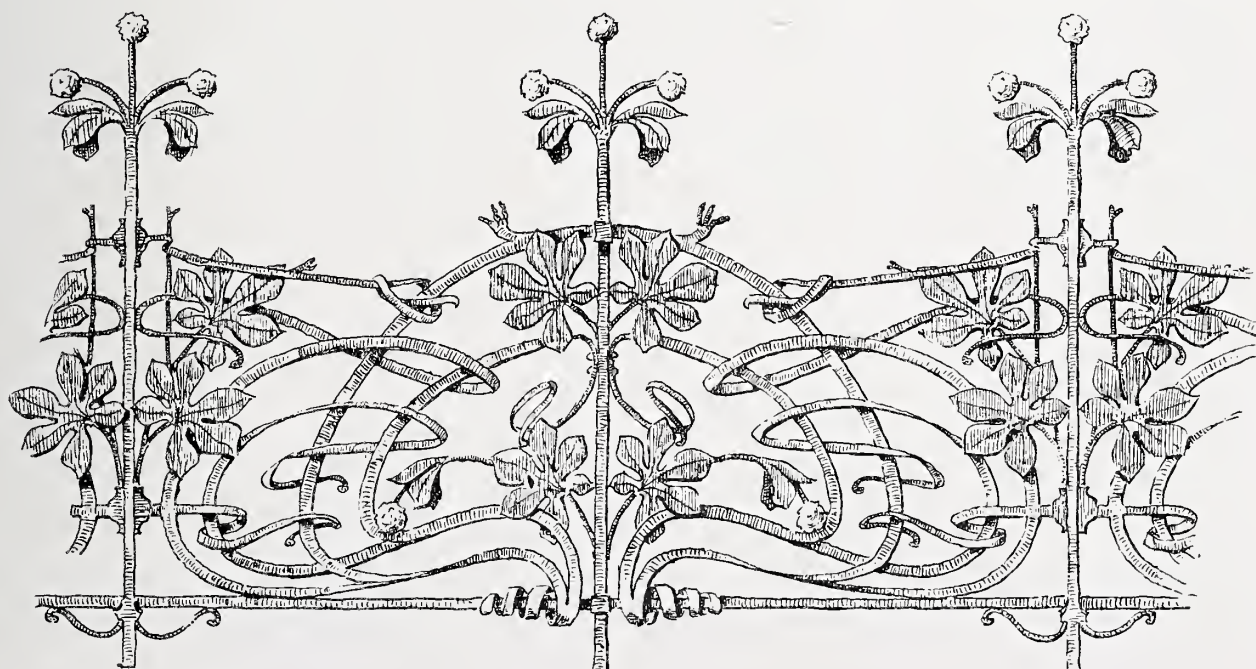




Electrolier in polished copper.



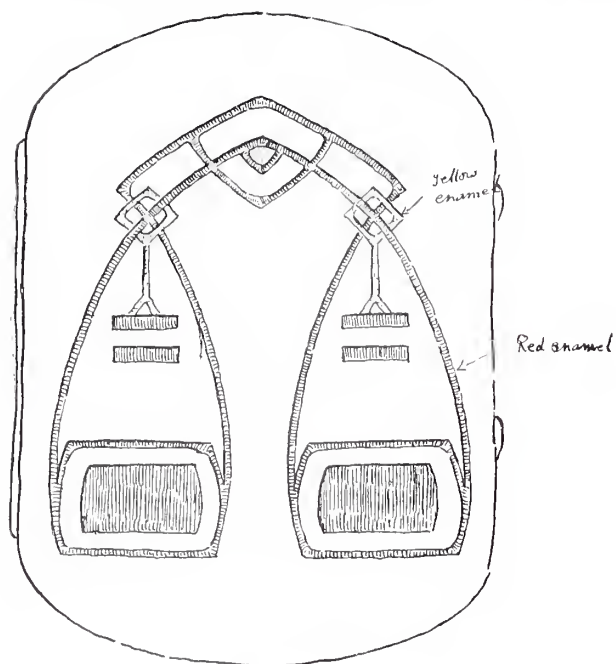
Polished copper and opal glass electrolier.



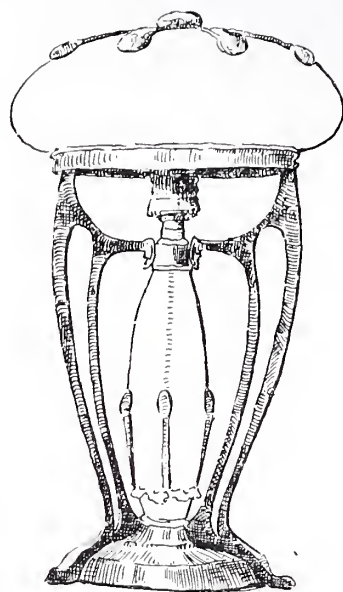
Wrought-iron railing.

METALWORK AT THE MILAN EXHIBITION.  
SKETCHED BY ROBERT W. CARDEN.

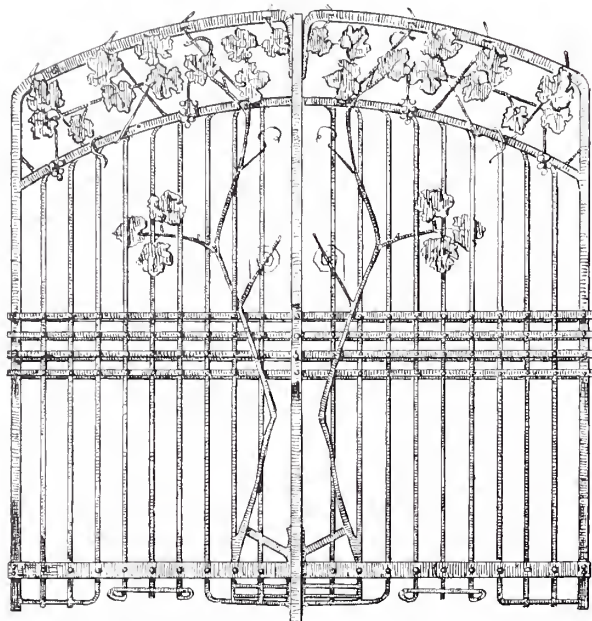




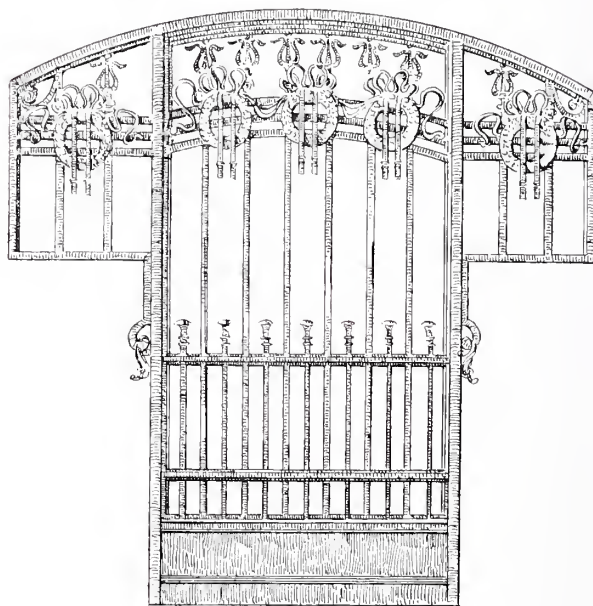
Cigar case in frosted silver.



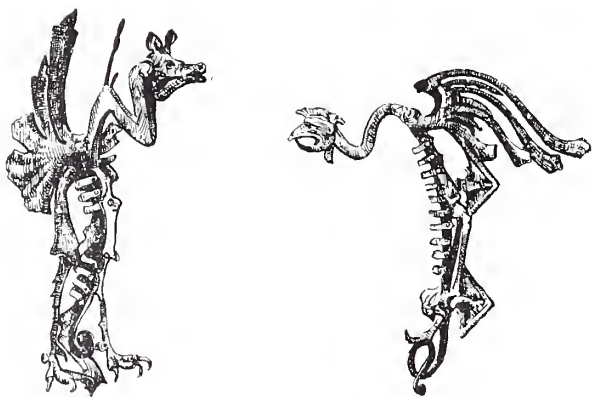
Standard electric lamp.



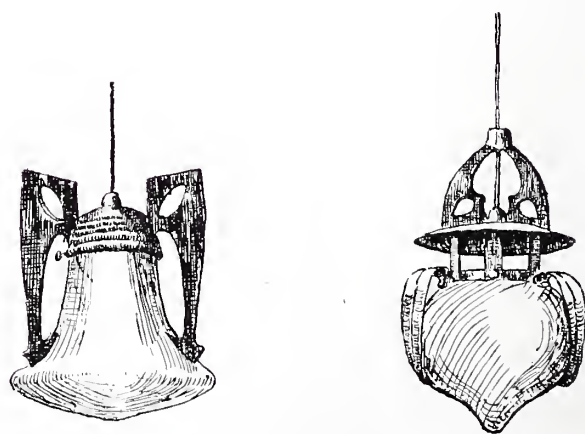
Wrought-iron gate.



Wrought-iron gate.



Two wall brackets for lamps in wrought-iron.



Glow lamps.



Hungarian bronzes disappeared before these notes were completed. It is just possible that some of them have escaped fusion; for even now, before the *débris* has been cleared away, a bronze horse still may be seen to stand amid the ruins ruefully surveying his less fortunate fellows.

To turn from what is being done in Italy in the crafts to the consideration of her progress in sanitary knowledge during the past few years is very nearly to make a rapid transition from the sublime to the ridiculous. It is not that Italy is not alive to the importance of the subject; it is that her sanitary engineers, with all the desire in the world to get the best possible, have very little knowledge of how to get it. From the exhibits it is evident that English fittings are recognised to be the best. This we gather from a careful examination, not only of their forms, but also from the names with which they are christened. You may see "Simplex," or "Sanitary," or a dozen other well-known names on closets, but they are made by native firms, and do not pretend to be anything else. The plumbing shown is beneath contempt, and they have more to learn in this branch than in any other. For them traps are only necessary under baths, and the overflow is connected on the drain side; lavatories join the nearest soil-pipe without the formality of a syphon. But what they cannot be made to understand is the purpose of an anti-syphonage pipe. In their simple sanitary creed a pipe is a thing which carries water from one place to another, "and no water goes down this auxiliary pipe which the English always insist on placing; therefore," says the *ingegnere sanitario* with a fine wave of his arms, "to place such a pipe is to waste the valuable money of my estimable client." While their closets are unsanitary, and disconnecting chambers practically unknown, any amount of labour is expended upon nickel finishings and wood casings. They enjoy complicating hot and cold water taps and douches, but the enamel on their baths will scarcely bear looking at, much less the slightest blow. Only one firm shows any sign of breaking out in a new direction, and their speciality is peculiar. It consists of an arrangement by which the w.c. flushes can be taken direct from the household cistern with no intermediate flushing tank, and the means by which this highly-desirable end is attained is by suddenly breaking the flush-pipe in its downward course, and then about two inches lower down continuing the pipe with a trumpet-shaped receiver to catch the water as it falls from the pipe above. It was in vain to point out that the principal object of the long, straight flushing-pipe was thereby defeated, and that instead of the flush discharging into the basin like a veritable cascade, it merely trickled lazily round and then

dribbled into the trap. It was speaking to deaf ears. Their drain-pipes are improving, and the glaze is good, but the internal surface is generally of the texture of rough cast; they are vastly ignorant of how to lay them properly, and have never heard of such things as gaskets. Two forms of junctions will serve all purposes; one makes its connection at a right angle, and the other at an angle of 60 deg. That their sanitary systems work at all is due to the fact that they employ pipes of a diameter you might walk through, but chiefly *because the soil is absorbent*. Disease is kept away by the germ-killing propensities of a brilliant sun, and the water supply in most towns (collected from the melting snows of the Alps or Apennines) is generally very good.

In sanitary knowledge, apart from engineering, the Italians are before us. The streets are washed—not watered—with disinfectant at daybreak, and even in the Exhibition a man goes round and sprinkles all the floors with "Lysoform," receiving from the head of the department a certificate to the effect that the visit has been made. There is as yet no law against expectoration; but the number of inventors who have turned their attention to antiseptic, disinfecting, folding, and collapsible spittoons is remarkable. The public buildings are cleaned down with patent vacuum dust extractors—an English invention, as usual, taken full advantage of by another nation—belonging to the Corporation, and the ratepayers are being urged to employ them for the cleaning of domestic carpets. And many of them do; that is the strangest part of it to an Englishman. Till now they have swept, or left unswept, their carpets, and it cost nothing; they see that this new thing is better, and are prepared to pay for it. O that England were not so conservative and afraid to learn!

Years spent in Italy and the last few weeks in Milan show that we have a wrong idea of Italy and a wrong idea of ourselves. Italy is an undying country; Rome is eternal; and Milan stands among the immortals. Utterly destroyed by Barbarossa, sacked and burnt a dozen times, captured by nearly every conqueror since Charles VIII. marched into Italy, Milan is to-day, in spite of this strenuous past, a great city of the present, and will become a greater city of the future. While the desolated site of the decorative arts is being cleared of rubbish, the authorities are receiving fresh applications for spaces in the new building, which the architects are engaged in preparing, and before these lines appear in print there will have arisen a new pavilion, complete and finished.

And we sit in our "right little, tight little island," pluming ourselves that we are the most energetic nation on the earth, content with the





THE TRANSPORTATION BUILDING.

mastery of trade we won long ago, wondering why it is slipping from us. This is the reason: we are self-satisfied, all-sufficient unto our own needs. Like the tortoise and the snail, Great Britain allows her rivals to outstrip her. While Switzerland grants £20,000 to her section at Milan, Germany £18,500, France £16,000, and Hungary £12,000,

our Government grants £10,000, and the executive committee spends it to the least possible advantage.

Let us hope that in the forthcoming International Exhibition at Dublin we shall at least make a representative effort to hold our own at home.

ROBERT W. CARDEN,  
*Special Correspondent to the Review.*



THE AUTOMOBILE AND CYCLE BUILDING.



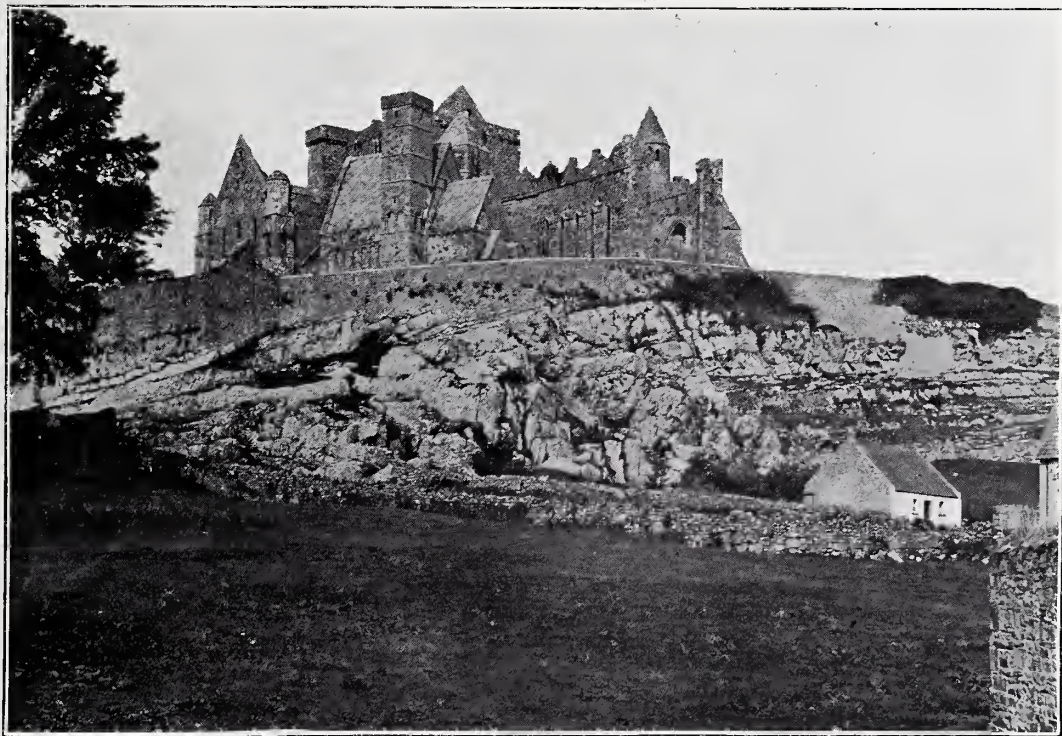
# A Sketch of Irish Ecclesiastical Architecture.

## VI.—IRISH ROMANESQUE.—PART II.

IN the first part of this article reasons were given for believing that Irish Romanesque is not independent of or anterior to the somewhat similar architecture of England or of Normandy: but, as has been suggested already, it would be a great mistake to suppose that this Irish architecture is in general a mere copy of a foreign style. At Cormac's Chapel, for instance, the transverse or diagonal vaulting-ribs of the roofs below, the radiating pointed arch which supports the external roofs of nave and chancel, are parts of a building which is in plan the direct descendant of those with double stone roofs already described, such as the self-contained monastery at Kells; the Chapel agrees with the earlier examples even in having been three-storied, though at Cashel the wooden floor divided the space above the inner stone roof, and at Kells that below it. So too the round apse did not establish itself in Ireland along with Norman ornament, though there is an oblong altar-compartment at Cashel, east of the chancel—the strange fragment of building jutting out to the east of the chancel arch at Kilmalkedar seems to be the remains of a similar recess, which the present chan-

cel superseded.<sup>57</sup> Cormac's Chapel contains many capitals more like the usual Norman types than is frequently the case in Irish Romanesque buildings, but even these are not precisely similar; and the pilasters in the nave, in spite of the zigzags, lozenges, and chequers cut on them, are distinctively Irish; they are in general effect somewhat like those on the west front of Ardfert Cathedral. Except for the square towers which stand as transepts to it—much as do those at Exeter Cathedral, begun in 1112—the Chapel is essentially an Irish building, in spite of its doorways and arcading—of the chevron and billet and bead with which it is ornamented.

And in general the plan of Irish Romanesque buildings follows the old lines—a nave and square-ended chancel without aisles. In fact it may be said that the ornament, largely of Norman character, is merely cut out of or laid on to an Irish church. The croft above the chancel is clearly indicated also at St. Saviour's, Glendalough, and even at Jerpoint Abbey; we shall find still later instances of it.<sup>58</sup> The plan of the church at Inismain (which has a late Irish Romanesque chancel arch), with rooms attached to form one (at least) of the transepts, carries out the



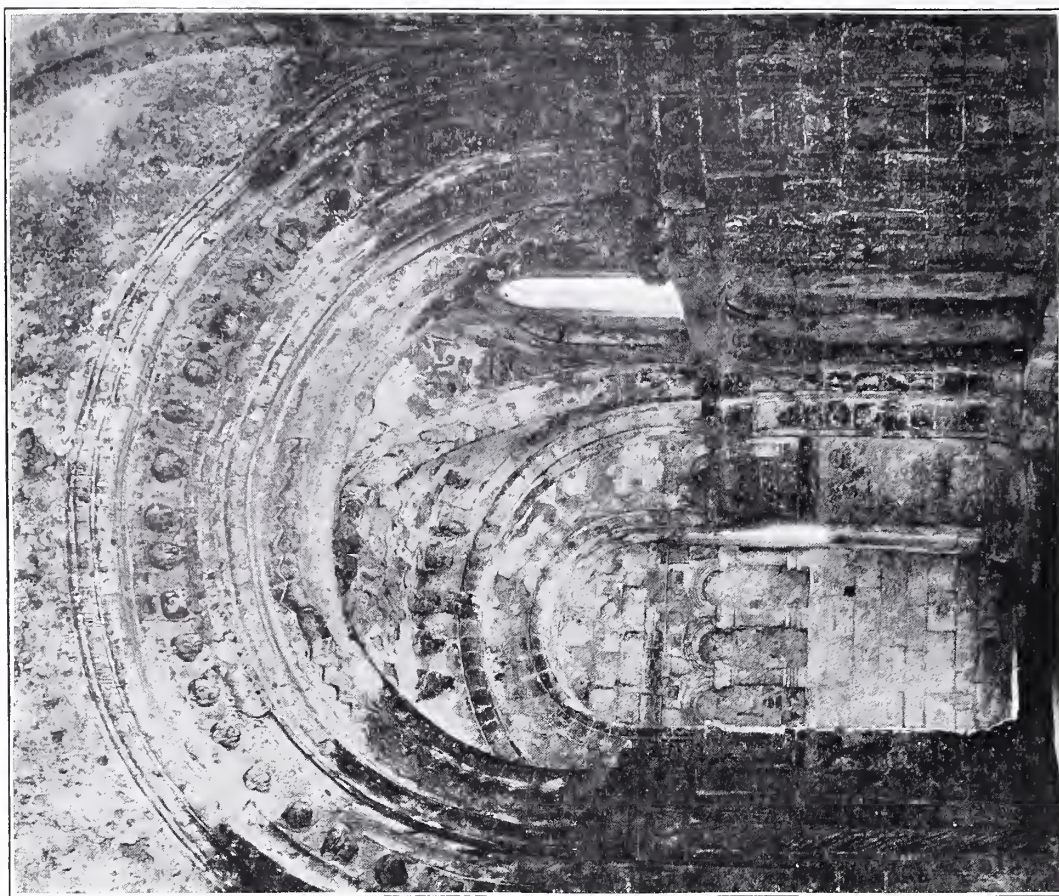
CASHEL, SHOWING CORMAC'S CHAPEL.

<sup>57</sup> There are said to be similar 'square apses' at Clamecy, near Nevers, and at Laon, in France, also at Sion in Switzerland.

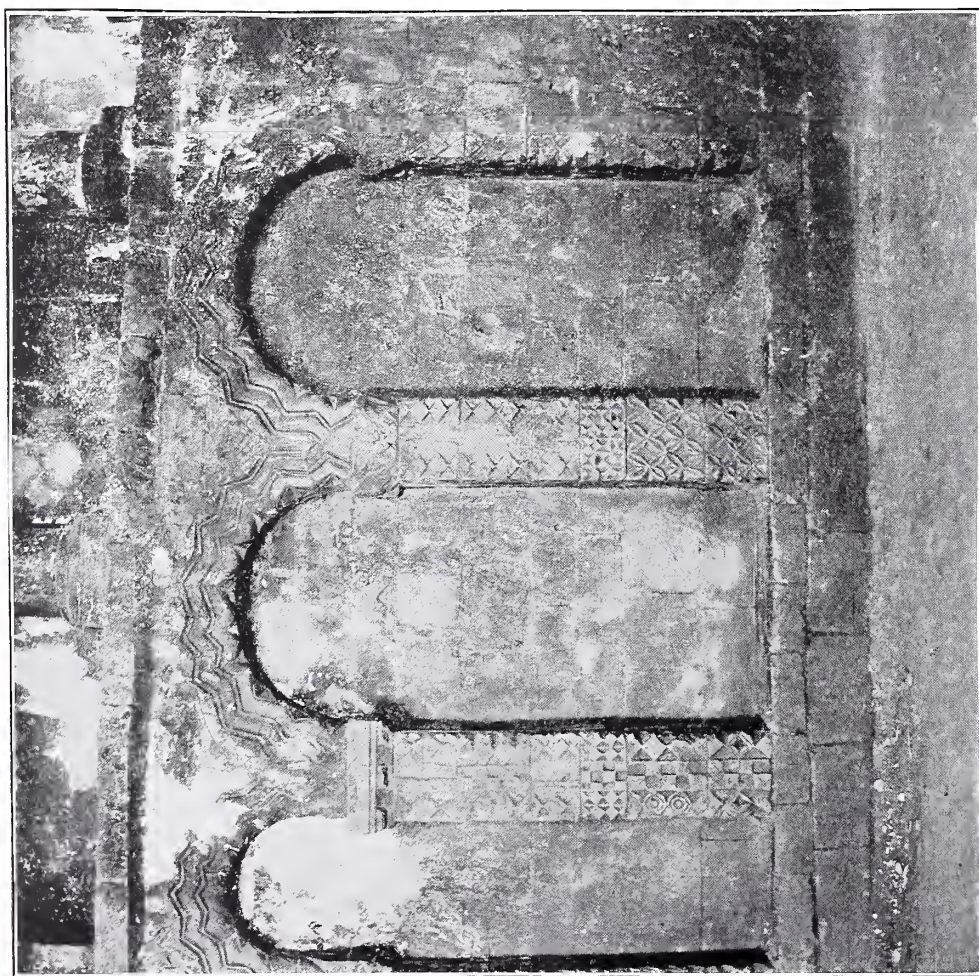
<sup>58</sup> The doorway of St. Flannan's Church at Killaloe, which has a similar croft over the nave, appears, from the character of the capital on the north (which resembles some in the choir

at Canterbury Cathedral, in the north porch at Wells, and still more closely others at New Shoreham), to belong unmistakably to no very early period in the twelfth century. There is no distinct sign that the doorway is an insertion; but, if it is not, the building—particularly its triangular headed windows—must be a very marked piece of archaism.

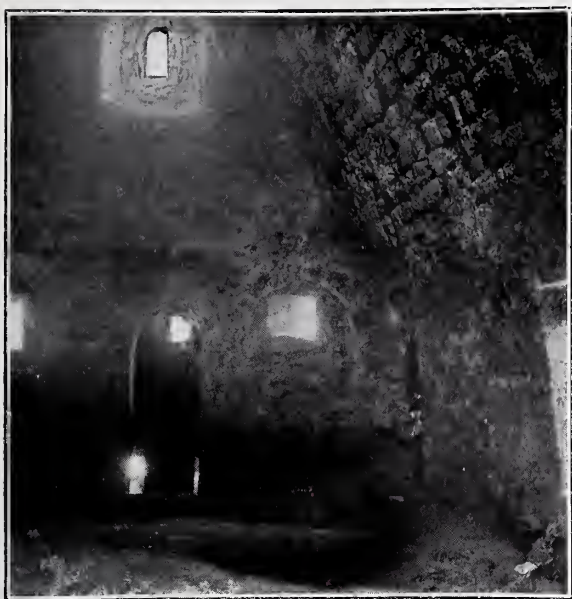




The interior.

The arcading.  
CORMAC'S CHAPEL.





CORMAC'S CHAPEL, CASHEL.

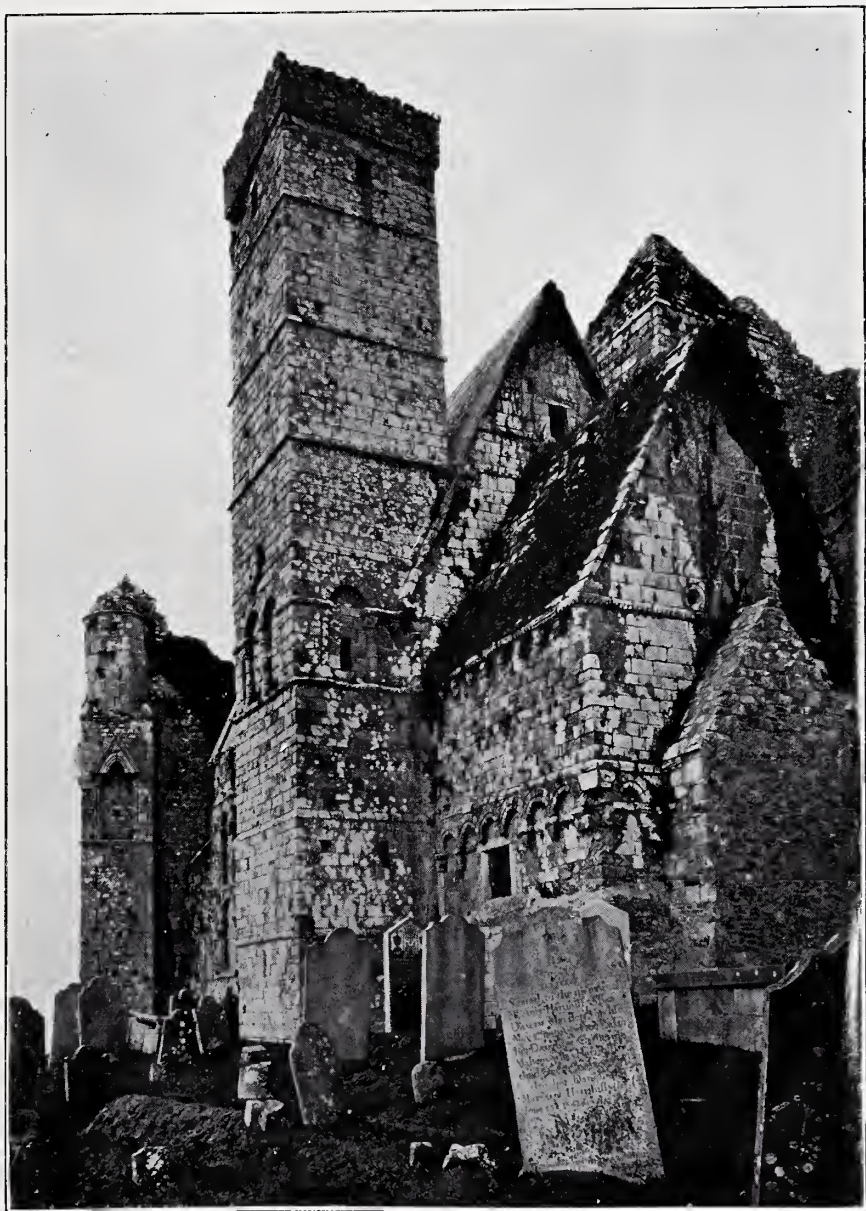
THE ROOF CHAMBER.

same idea in a rather different form. And the square-headed doorway there with sloping sides<sup>59</sup> is itself a strong instance of Irish conservatism—like the windows in the later Round Towers. Then there are the single stone roofs—as at Kilmalkedar, where they covered both nave and chancel—which are like those in earlier Irish buildings; as are also the barrel vaults, whatever roof they had above them, as at Tuam—the building of these went on till a far later date. The *antæ*, or corner-pilasters, are still found, as at Clonfert and Freshford, and at Kilmalkedar, where they extend up the line of the gable.<sup>60</sup> But at the east end of the chancels at Tomgraney and at Banagher (Co. Londonderry), at all four corners of the nave of *Teamhull-na-Hoe*, Ardfert, and in some other examples, the place of these is taken by slender pillars with capitals finishing off the angles of the walls; at Ardfert these support a cornice decorated with beads. Except the *antæ*, buttresses of this period are most uncommon. On the other hand there is sometimes, as in the early work and in the Round Towers, a plinth; for instance, on the north side of the chancel at Tomgraney. The

sloping sides of openings, which we noticed in the earliest dry-stone buildings of Ireland, still occur, not only at Inismain, but in the chancel arch at St. Caimin's, in the splendid doorway of Clonfert Cathedral, in a window of the small church at Rahan, besides other examples.

As has been already indicated, capitals of ordinary Norman types are rather exceptional; though there is usually a distinct abacus below the arch, the rest of the capital is often little more than a block with ornament carved on it—incised or in low relief. This ornamentation—in spiral, key, or interlaced patterns—sometimes reminds one of the High Crosses or the grave-slabs.

Beneath the chancel arch of the larger church at Rahan, the beads which stand out under the abacus are really made by combining three curved pear-shaped ornaments or leaves, and seem to be derived from the

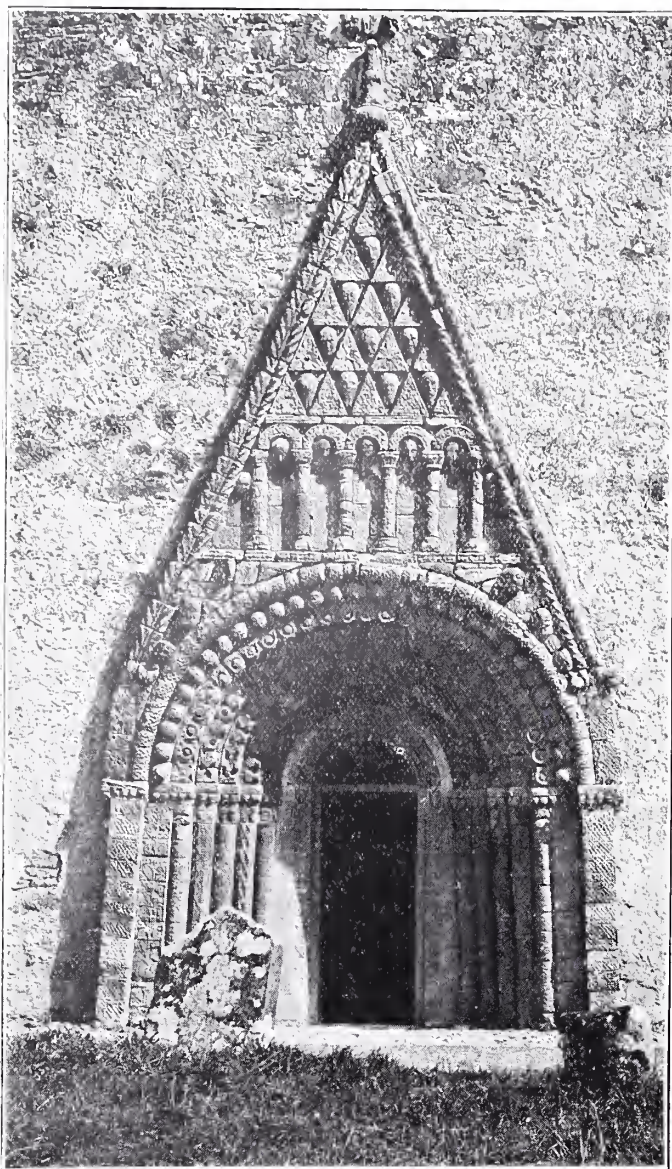


CORMAC'S CHAPEL.

<sup>59</sup> See Article II. (August, 1905), pp. 75, 76.

<sup>60</sup> See illustration in Article V. Part II. p. 141.





DOORWAY, CLONFERT CATHEDRAL.

triple spiral<sup>61</sup> commonly used in the centre of crosses on grave-stones; there is some similar ornament in the same position below the chancel arch in the Nuns' Church at Clonmacnoise, and at a distance it bears considerable resemblance to the ball-flower, which was used in France at the end of the twelfth century. The pillars are by no means always parts of a round, some of them take the form of flat pilasters or are octagonal, as in the doorway at Clonfert. They often

stand out but little; in the chancel arch and doorway of the Nuns' Church at Clonmacnoise, for instance, they—and their capitals—correspond very closely in section with the 'orders' of the arch above, as if they were just cut out of an opening receding by square steps. At Rahan, below the arch already mentioned, the innermost column is cut into small shafts at the corners, like the piers of the nave in Limerick Cathedral and of the south transept and western part of the nave at Jerpoint Abbey; or, like some late Norman buttresses, as at Glastonbury and Dunstable. The bases are often but slightly marked; sometimes, as at the foot of these corner-shafts at Rahan, as well as in the doorway of the Round Tower at Timahoe, they assume an elongated 'bulbous' form, more like part of a Saxon baluster-shaft than an ordinary Norman base. These pillars or pilasters are often decorated all over with patterns, incised or in low relief. This ornament (as has been said already) is frequently of chevron or lozenge; but it is often of distinctly Irish character. The square orders of the arches are usually cut into chevron, 'interrupted chevron,' or some similar Norman pattern, or into 'beak-heads,' but in some cases, notably in the doorway at Freshford, an elaborate 'battlement' pattern is used (like the later Irish battlements), and on the soffit of the arch this is further elaborated and combined so as to form a sort of cross. This ornament, as opposed to the simple 'battlement' moulding, is very rare in Norman architecture elsewhere,<sup>62</sup> but it is curious that it is found (as well as its simpler form) in the representation of an arch in a Greek MS. "of the ninth or tenth century." The soffit of the chancel arch at Kilmalkedar is decorated with rosettes, such as have been already mentioned in connection with the doorway of the Round Tower at Kildare. Besides the main features of the ornament, the arches often have much subordinate decoration—lines running parallel to and emphasising the zigzagged edges, and beads, of which the Irish made much use, whether by themselves or to enrich other carving.

ARTHUR C. CHAMPNEYS.

NOTE.—The photograph of exterior of Cormac's Chapel on page 149 is by Lawrence, of Dublin. The rest of the views are taken by the author and developed by Messrs. Seaman, of Lkeston.

(To be continued.)

<sup>61</sup> See Article V.

<sup>62</sup> Parker says that this ornament "seems to be almost peculiarly Irish, though some specimens very similar occur among the fragments of the Norman buildings at Windsor Castle." *Notes on the Architecture of Ireland*, in the *Gentleman's Magazine*, April, 1864, p. 414. It appears (not doubled) on the door-jambs

at Aghadoe. The doubled form, like a cross, closely resembles patterns in the Book of Kells. A very plain form of the pattern (not doubled) is carved within the semi-circular tops of scollops upon capitals in the nave of Hereford Cathedral and at Dorchester, near Oxford.



# The London Traffic Commission Report.

It would be an exceedingly doubtful benefit if in the present condition of the art of civil architecture in England, any great or wide scheme of street construction or improvement were launched upon London. We have not at present the consistency of architectural tradition and thought, or simplicity of outlook, which is requisite for producing the design of a single complete street or public place. Moorgate Street, King William Street, Regent Street, or Carlton House Terrace are as far removed from present-day ideals and possibilities as the Finsbury Circus of a few years back, Gower Street, or Portland Place.

It is earnestly to be hoped that fate will considerably delay, as it is quite likely to, the prosecution of such drastic site-production as the new thoroughfares scheme of the London Traffic Commission, until the education of those into whose hands the erection of the requisite new buildings will fall has procured a more proper appreciation of the decencies and proprieties of civil architecture than evidently now exists amongst us. It may be taken for granted that the London of nowadays will not stand the Haussmann methods of the Third Empire, or submit to a domination like that of Nash in the Regency era. We are too fully awake to the preciousness of personal liberty and to the beauty of architectural freedom to take kindly to the sacrifice of idiosyncrasy or of that advertisement which peculiarity of design affords, and being free and enlightened it is frankly impossible to impose either a bondage of imperial will or the direction which blindness accepts willingly and uncritically from men of light and leading. Present architectural conditions are not advantageous to any broad scheme of rebuilding for London; the true interest of architecture, as well as the temper of taste, would be best served by making the most of what existing good buildings and streets we possess. The rising tide of appreciation for genuine building art will, it is to be hoped, ere long gain sufficient force to carry away with its impetus the commercial character which to-day dominates nearly all other considerations; it being remembered that the architecture involved in the operation of street improvements is almost wholly commercial in purpose. Chastened by such reflections we do not view with eagerness the prospect of the two new main avenues from east to west and from north to south suggested by the Advisory Board of Engineers to the Royal Commission, and published with their Report. These two great avenues are not presented as carefully thought-out schemes, but rather as sketch suggestions, and they are consequently open to criticism in such quantity that other important street improvements, also

indicated by the Advisory Board, may be overlooked; but of all the suggestions naturally the more heroic involve the more architectural problems and perforce almost monopolise our attention. The architectural aspect of the heroic new main avenues which are to criss-cross London is wholly what their new buildings may make them. Neither one nor the other has any building of importance or interest upon or in its line of route, and no architectural effects are gained by contact with intersecting roads of importance. From west to east the new avenue makes hay of the square gardens between Lancaster Gate and the Foundling Hospital *en route* for Liverpool Street *via* Pentonville Hill, terminating its blessedness at Commercial Road eastwards; while that from the north exposes *en route* the seamy side of Islington, again in its way towards the foot of Pentonville Hill. No works of architecture are sought for in this route until Staple Inn is found and immolated, being in the way of the southern arm of the cross, which is to be brought over the river cheek by jowl with Blackfriars Bridge. The principal architectural effect of these two great suggested avenues thus being the avoidance of such interesting buildings and the destruction of others, it becomes evident how little architectural considerations have weighed with the preparation of the scheme.

It is not probably necessary to dwell at length on the practicability of the scheme of main avenues, as the expenditure it would necessitate when faced would be found so large and the advantages gained so indefinite that its accomplishment would not be ultimately achieved. London is after all a collection of buildings more or less useful, and the almost blind cutting of two huge arteries is not likely to commend itself to the bulk of its inhabitants, whose main interest is neither to reach Whitechapel from Bayswater or the Borough from Barnsbury without contact with the heart of the City and with its interests. The policy of this part of the plan appears clearly to be to find lines of least resistance in residential value, and so far as possible to make short and direct cuts from end to end of the tangle which should afford space enough for rapid locomotion by double tramway services.

The need for more practicable improvements in existing thoroughfares, however, has not been overlooked in the report. The published street plan indicates many of considerable importance and usefulness and of more practicable expense. Nearly all these widenings are designed to benefit the south-western district and to make room for omnibuses and trams *en route* for Putney and Hammersmith, while south of the river the



Wandsworth Road is the only route favoured with attention.

For the rest the new main avenues already dealt with have to suffice with the new bridge east of the Temple, a position difficult to justify in view of the position of Aldwych and the absence of any great widening in Fleet Street, while on the Surrey side it only adds a third wide road between those of Waterloo and Blackfriars.

Space forbids reference to all the points of interest in the street plan, but some may be instanced as affording not only relief to traffic at congested points, but as offering architectural effects of interest and often of that peculiarly picturesque construction which the varied buildings of an historic city like London can produce.

First as to Hyde Park. The Commission street plan suggests the widening of Bayswater Road, also extended along Kensington Gardens, and the rounding of the Marble Arch corner into Park Lane. There is undoubtedly the possibility of an economical artistic improvement in this suggestion. A fair slice of the park and gardens, say 100 ft. wide, should be taken by setting back the enclosing railings sufficiently to give an island strip of trees, lawns, and beds between double carriage-ways. The trees and shrubs are there already, with the roadway on one side, so the formation of a park boulevard road for a mile and a half would be easily obtained.

The Marble Arch corner has been already the subject of a crude suggestion from outside. The western end of Oxford Street widens with considerable dignity at Hereford Gardens, and if the block of Camelford House, with its quaint fore-court and stables, and the two houses or so at the corner of Park Lane could be put into the scheme a really fine place could be obtained, receiving the traffic from west and east and from north and south.

It may sound dreadful to some, but would, I am sure, in spite of all prejudices, prove a beautifying boon to all classes if the park and its eastern roadway were combined with Park Lane, so that one of the most charming effects in London of picturesque combination of house and park architecture might be realised.

The suggestion for the widening of Knightsbridge west of Albert Gate and Kensington Gore could also be dealt with similarly, and Hyde Park and Kensington Gardens would thus not only incorporate some of their beauty with the surrounding thoroughfares, but would give inexpensive relief to the traffic. What is true of Hyde Park applies with equal if not greater force to the Green Park. The Commission plan suggests the most obvious need of all in the formation

of a road parallel with its eastern boundary. If this were carried out it would be reasonable to widen the Piccadilly way by including a park strip on the north, as traffic could divert where Piccadilly would narrow at Berkeley Street into Jermyn Street or into the extended Pall Mall—a scheme pressed many years ago upon the public by Sir Charles Barry. Constitution Hill would widen itself without troubling anybody.

The eastern side of St. James's Park remains to be dealt with. The Commission suggest the removal of the Duke of York's Column and steps, and some heroic dealing with the cliff that would be left. It is difficult to advise otherwise if Carlton House Terrace is to be left. The column, statue, and steps are really quite good for London, and till we know that we can do better should be left. Architecture would much prefer that Nelson's Column should first be revised; and Carlton House Terrace is certainly good enough to be left awhile. If the new eastern side thoroughfare were continued parallel with the Government offices through the site of the present County Council offices, shortly to be evacuated, it would meet the base of the Haymarket and receive the north to south traffic almost as well as through Waterloo Place and the Column. The extension past Storey's Gate through Princes Street to the west front of the Abbey is too good not to be done, and very soon too.

These marginal utilisations of the parks are nearly all included in the recommendations of the Commission, and should not be lost sight of. The pleasure of streets made park-like in a city is one that we know little of in London, and yet we have more opportunities of producing delightful boulevards of this character than any other European city. It is difficult to realise any objections of real force to the process of widening the public thoroughfares around the public parks; the open space will not be diminished, the trees will not be disturbed, more than sufficient preserves will be retained in each case, and multitudes along the lines of their daily routine of toil will have the refreshment and pleasure of tree-shaded garden walks and drives who are now excluded by railings unduly pressed to the boundaries of ancient owner-ships which are no longer effective as against public rights.

We have been confined to the consideration of the possible architectural effect of the results of the Commission's deliberations, and have found abundant food for reflection upon its possibilities when the happy day comes that the public awakes to the existence both of its national architecture and, we earnestly endeavour to hope, of its architects.

BERESFORD PITE.





Photo : Dann & Lewis.

BREACH HOUSE, CHOLSEY. THE HALL.

## Current Architecture.

BREACH HOUSE, CHOLSEY.—This house was designed by Mr. Edward Warren, architect, for his own use. It is built of local bricks, overlaid with “fine-cast” or rough stucco, and colour-washed, and the roofs are covered with old red tiles obtained from neighbouring farm buildings. The corners of the house face almost exactly the cardinal points of the compass. The site is upon a spur of the Berkshire Downs, and about 300 ft. above the sea, commanding fine views of the

Thames Valley and the Chilterns. The builders were Messrs. Bosher & Sons, of Cholsey. Most of the joinery was carried out by Messrs. S. Elliott & Co., of Reading; while chimney-pieces, Portland-stone columns, etc., were supplied by Messrs. Holloway Bros. and Mr. T. E. Jago, of London; marble flooring for the hall by Messrs. Arthur Lee & Bros., of Hayes; iron casements by Messrs. Clubb & Son, of Hampstead; and leaded glazing by Mr. H. J. Salisbury.

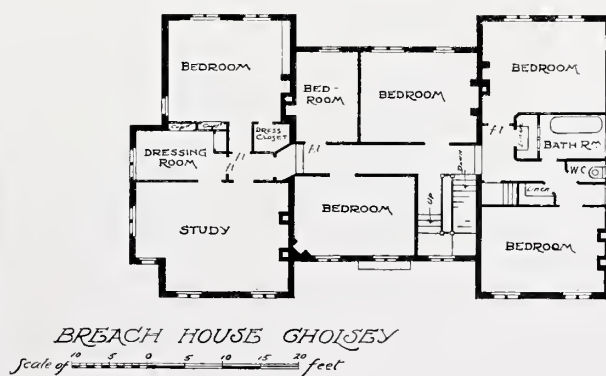
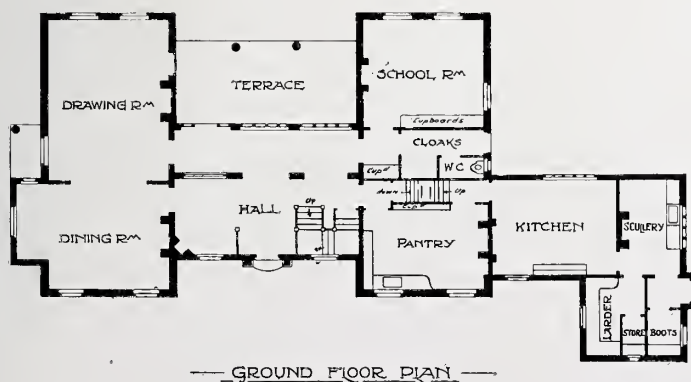






Photo : Dann & Lewis.

BREACH HOUSE, CHOLSEY. ENTRANCE FRONT.  
EDWARD WARREN, ARCHITECT.





Photo: Dunn & Lewis.

BREACH HOUSE, CHOLSEY. GARDEN FRONT,  
EDWARD WARREN, ARCHITECT.





BREACH HOUSE, CHOLSEY. DRAWING-ROOM.  
EDWARD WARREN, ARCHITECT.

Photo: Dann & Lewis.



THE ARCHITECTURAL  
REVIEW, OCTOBER,  
1906, VOLUME XX.  
NO. 119.





Photo: Bedford Lemere.

ADDITIONS TO "HALLABURTON," FIFESHIRE. THE DRAWING-ROOM.  
R. S. LORIMER, A.R.S.A., ARCHITECT. See "Current Architecture."



# Architectural Refinements.

## A Reply to Mr. Prior.—II.

THE problem of mediæval asymmetric plans is certainly a complicated, difficult, and largely unsettled problem. Mr. Prior's method is to argue from the doubtful cases that all of the asymmetric plans are due to causes which he believes to be sufficient explanation for those with which he is best acquainted. The suggestion of the Edinburgh Catalogue is, on the contrary, that some or many of the doubtful cases may be developments or phases of a systematic practice which is claimed to have in Italy incontrovertible and impregnable illustrations. This suggestion raises two questions: First, do the conditions described by Mr. Prior cover all the cases in Northern Europe? Second, do they cover all the Italian plans which I have surveyed and published?

Waiving the authority of Viollet-le-Duc,<sup>12</sup> we will take up on our own account the gauntlet which Mr. Prior has thrown down in his designation of "Class IV.—*Misfittings of work where alteration or stoppage of building has occurred.*" The contention that a stoppage of work will explain all deflected plans clearly concedes the ability of the mediæval masons to build to a straight line when the work was not stopped. The contention that the interposition of a screen dividing the completed choir from the uncompleted or unplanned nave will explain a bend in plan concedes the ability of the mediæval masons to lay down a true right angle or to build to a true line when no such screen interfered with their work. The difficulty with these explanations is that they do not cover the instances of the delicately continuous and unbroken curves in plan. For example, Saint-Ouen at Rouen, which ranks as one of the finest Gothic churches in Northern Europe, is built on a very delicate and continuous swinging curve ("Hogarth's line of beauty"). To verify immediately the existence and character of this swinging curve in plan, which is well known to the sacristan (or was in 1870), the visitor is advised to sight on the joints of the pavement slabs along the centre of the nave, and then to sight on the central line of the vaulting. The same curves can be sighted in the alignment of the piers.

Again, Notre-Dame at Paris not only has a deflected choir, but the entire nave, from the gallery parapets to the upper parapets of the clerestory walls at the roof line, has a delicate curve in plan convex to exterior on the north side and concave to exterior on the south side (with deflection at the centre of seven to nine inches),

and swinging in opposed direction to the deflection of the choir. The visitor can most easily examine these curves in the exterior parapet galleries above the clerestory walls, but they are equally pronounced at the parapet of the triforium. As these curves are parallel on opposed sides of the church, it follows that thrust cannot explain them. (They are counter to thrust in the north gallery parapet of the nave.) The exterior lower aisle walls are absolutely straight. Here are facts (shown by photographs at Edinburgh) which Mr. Prior's theories cannot explain, because the curves are regular and continuous. Now, the question is, do these facts reach over into the phenomena which his theories are held to explain. For example, is the deflected choir of Notre-Dame to be explained on Mr. Prior's theory while the curves of the nave are conceded to be intentionally constructive? Logic says no. Then comes the question, how about the deflected choir in churches where the curves in plan are not found? Still admitting that local explanations might cover some of them, is it likely that they cover all?

There is another class of Italian plans, and not one example of such a plan has ever been published with measurements outside of the writer's publications, as far as known. These are the plans which are oblique to the façade, without bends or deflections of alignment in the outer walls. Thus we take up Mr. Prior's "Class III.—*Crooked Sites.*"

Now, on the theory either of crooked sites or of inability to lay out a right angle, some of these plans would necessarily have, on the doctrine of chances, diverging directions toward the choir. Some angles would accidentally be acute, and some would accidentally be obtuse. But in some thirty-six Italian cases of this type which have been surveyed or examined carefully, the writer does not know of any instance in which the walls are not oblique in the same direction. Two obtuse angles in the outer walls, widening toward the choir, have not been found in any one of these plans. The doctrine of conformity to crooked sites, as explaining all the oblique plans, may find its Waterloo here.

On the doctrine of chances it is also difficult to explain why in these same oblique plans the interior lines of piers or columns almost invariably diverge in straight lines toward the choir, especially when this fact is contrasted with the other just quoted, that the exterior walls never diverge in this fashion.

<sup>12</sup> As quoted in my preceding article for the asymmetric plan of the Cathedral of Saint-Denis.



Here again, in dealing with interiors, the insufficiency of the explanation of crooked sites or of a screened-off choir appears in more than one particular. The explanation of crooked sites presupposes the ability to lay out a right angle unless good reason exists to the contrary. It therefore does not cover the instances of normal and rectangular exterior plans with an interior showing diverging arcades; because in these cases the site is not crooked. Nor does it cover the cases of the oblique plans with interior diverging arcades, because the interior site is not crooked in the same way as the plan of the arcades.

As to the theory of screened choirs, which also presupposes the ability to lay out a right angle under normal conditions, there are three objections. First: The oblique plans are continuously oblique in straight lines, including the choir, in many instances where no transepts occur,<sup>13</sup> as well as in instances where transepts are found.<sup>14</sup> In other words, there are no bends or deflections of alignment to be explained in these cases. Second: The interior diverging arcades are found in churches where the divergence is continuous in unbroken lines from the façade through the transept, inclusive. Third: Many of the quoted churches are so small (having, moreover, no transepts, and no development of the choir, as usual in the Romanesque basilica types of Italy), that the suggestion of a long-delayed construction and of a screened-off choir is dangerously hypothetical, not to say foolish.

As regards the amount of divergence in plan in the instance of these interior arcades which widen toward the choir, measurements may be found in numerous plans, which were all exhibited at Edinburgh. We will only quote Ruvo Cathedral, widening in the nave two feet; S. Pietro at Toscanella, widening in the nave five feet; and Cremona Cathedral, widening in the nave from entrance to apse, eight feet. The arcade alignments are impeccable in all these cases.

Certainly it would be asking too much of Mr. Prior to have observed all these difficulties in his three hours' examination of the Edinburgh Exhibition. He has obviously not read the publication in which a number of these plans occur, otherwise he would have mentioned it, or would have considered the subject more carefully.<sup>15</sup>

There is still a matter to be considered in these plans, viz., the occurrence of progressive sequences of varied measurements in interior arcades or of

varied measurements which correspond by pairs, showing an effort to break the monotony of a regular arcading, and to this we will return presently.

In the matter of the deflected plans of Northern Europe, the theory of "misfits" due to the abandonment and resumption of work surely cannot assume that the work was never locally continuous in alignment and execution because it was occasionally abandoned and interrupted as regards the sequence of time. It is difficult to understand why the laying-off of work for a week, or even for a day, would not serve Mr. Prior's argument as well as the stoppage of work for a number of years. Moreover, temporary screens and transverse walls might interfere with interior sighting, but they would not prevent exterior sighting and justification accordingly.<sup>16</sup>

The jocular suggestion that intoxicating liquors have played their part in these problems is also susceptible of wider application than Mr. Prior has given it. I see no reason why it should not apply to alignment, and if so applied, why debate the possibilities of screens or stoppage of work? "The mason sets out six spaces accurately and celebrates the event, perhaps, too lavishly one night, and the next morning 'has a head' and makes a terrible break in the average of accuracy." This, in effect, is the doctrine of most sceptics in these matters. The mason had "a jag," and if he did not he might as well have had one, for he neither cared nor knew what he was about. Mr. Prior's attitude is not as bad as this. He only suggests the "jag" where I have established a margin of builder's error. This overlooks the point that the margin of builder's error is supposed to include all the errors and all the causes for the same in any one given building. For example, in my publication on the margin of builder's error in English Cathedrals I have stated the greatest error in each building quoted.<sup>17</sup> Thus we have reached Mr. Prior's "Class I.—*Errors of Measurement*," under which the influence of intoxicating liquors is discussed as above quoted.

It is a pity that Mr. Prior has not more seriously considered the points brought out by the Italian surveys as regards variations of measurement. No such cases of variation are quoted as arguments unless the measurements are found *in pairs* or *in progressive sequences*, and in many cases used as arguments the measurements vary by pairs and in sequences combined. The chances

<sup>13</sup> Cathedral of Ruvo, for instance, with total obliquity from entrance to apse of 8 ft.

<sup>14</sup> Cremona Cathedral, for instance, with total obliquity from entrance to apse of 13 ft.

<sup>15</sup> It is quoted in the bibliography of the Edinburgh Catalogue; *Architectural Record*, Vol. VI, No. 3, January-March, 1897, "Constructive Asymmetry in Mediæval Italian Churches."

<sup>16</sup> This has also been overlooked by Count Robert de Lasteyrie. Reference follows later.

<sup>17</sup> *Scribner's Magazine* for September 1898: "Newly Discovered Refinements in Architecture in the Field of Art," with introduction by Dr. Russell Sturgis.



against a sequent variation of a certain number of measures in regular progression being due to error or accident are the same which hold against drawing the same measures, as written on slips of paper, out of a hat in the same regular order. The chances against any arrangement of measures, which correspond in pairs, being due to error or accident, are the same which hold against taking out of a hat the given series of numbers in the order in which they occur on one side of a given building, whatever that order may be. These are the considerations which determine the intentional construction of the interior arcades at Fiesole, and of both the interior and exterior arcadings at Pisa. These are the considerations which apply to hundreds of measurements in Italy. When a sequence of varied measurements occurs in pairs, the margin of builder's error may be established by noting the highest variation in any one pair. Mr. Prior does not explain why the mason who has "celebrated too lavishly" should make his mistakes in pairs.<sup>18</sup> He does not even suggest that it is due to "seeing double."

Similar considerations, as derived from the law of chances, apply to curves which are not due to thrust, settlement, or building to site; for in every true curve there is a regular sequence of masonry arrangement, and the chances against an accidental arrangement of such a sequence are enormous. For example, the chances against a single line of ten columns being accidentally set in a regular curve in plan are over three millions to one. The chances against two parallel curves of this character being due to careless setting out are beyond computation. According to the law of permutations and combinations the exact number of chances against the careless setting out of one line of ten columns or piers in a regular curve are 3,628,800 to 1.

It may be suggested that the differences of opinion as between Mr. Prior and myself are partially due to our different points of departure; his from English churches and mine from Italian; neither one of us knowing very much about the other's strength on his own ground. I have found no refinements in the Norman churches of South Italy, Sicily, or Normandy, as far as examined. It might, therefore, be presumed in advance that the churches of England would be more or less deficient in such phenomena, as far as Norman influence is concerned. I have also found that the phenomena which I have quoted are infrequent after the thirteenth century. Now, the Gothic of England is very largely later than this. Moreover, by actual, though very hasty, search, the following English cathedrals have revealed no intended asymmetries, viz., York, Ely, Norwich,

Salisbury, and Wells. There are some other churches, of which I prefer not to speak at present, but my observations in Great Britain are not very important so far. On the other hand, my experience in Italy tends to show that in order to reach any valid conclusions *all* the important churches of any given country must be examined. For Italy I have fairly attained this ideal in field-work, although not in publication, for which both time and money have been lacking.

In France the territory covered has been very limited, but includes all the great Northern Gothic cathedrals. Here what may be called the Pisanesque phenomena have only been found in Notre-Dame at Paris. Otherwise, the phenomena observed have been mainly limited to the vertical curves and the vertical widening. The evidence for these phenomena as constructive is overwhelming, in my opinion, in the French churches. The deficiency of observations for the French and German Romanesque is to be regretted.

In England, as an outlying province of the Continent, it has always been my belief that constructive asymmetries would be minimised, mainly because the late mediæval period was the period of their disappearance, and because there is so much late work in England.

Very valuable evidence is, however, to be obtained from the buildings in which no constructive asymmetries are found; for the more numerous these buildings are, the more difficult it is to concede that the hitherto quoted explanations will cover the Italian or French phenomena.

A deficiency in Mr. Prior's review, unavoidable by one not familiar with the Italian churches, is thus brought to notice. This deficiency consists in overlooking the argument to be derived from the churches which are deficient in constructive asymmetries. The following list of Italian cathedrals and first-rank churches in which no constructive asymmetries have been observed would be very materially increased if second-rank or minor churches were included:—Milan Cathedral; Church of the Certosa, Pavia; Cathedral of Verona, Churches of S. Zeno and S. Anastasia at Verona; Cathedral of Padua; Church of the Frari, Venice; Cathedrals of Murano and Torcello; Cathedrals of Bologna, Florence, Pistoja, Viterbo; S. Apollinare in Classe and S. Vitale at Ravenna; S. Ciriaco, Ancona; S. Maria Sopra Minerva, Rome, and most of the early Roman basilicas; Cathedrals of Salerno, Ravello, Palermo, Monreale, Barletta, Molfetta, Bari, Bitonto, Matera, Altamura, etc.

On what possible theory can it be suggested that the churches represented by the Edinburgh exhibits should be radically different from those

<sup>18</sup> For an analysis of such measurements, with numerous quotations, see the *Architectural Record*, Vol. VI, No. 3, 1897.



mentioned by this list (which is only thus limited by deference to the patience of the reader), excepting on the theory that they *are* different? What fortunate fate has spared these cathedrals, and so many more churches which might be mentioned, from the consequences which flow, according to Mr. Prior, from a headache after a spree? Are the foundations any better at Torcello or Murano than they are in S. Mark's? Was the choir screened off in San Apollinare Nuovo and was the screening system abandoned in San Apollinare in Classe; both churches of the same dimensions, age, and style, with well-known histories? Was the Cathedral of Florence completed without the interruptions which are supposed to have affected Fiesole?

If the thousand-and-one explanations which are hypothetically suggested by Mr. Prior for the Edinburgh exhibits are valid explanations, why are they not needed in a vast multitude of other Italian examples? If the special phenomena of the Pisan Romanesque need no special explanation, why are they not found all over Italy and all over Europe, etc., etc.? These are the questions which a serious student is obliged to answer. Moreover, they are questions which demand serious knowledge of the architectural monuments, not simply in England, but in all Europe.

Aside from other differences of opinion between myself and Mr. Prior, there is this one. Mr. Prior "inclines to the thought that exactness, smoothness, and certainty are the real refinements." (And yet he has eloquently contended in his books that all the English cathedrals and churches which have been restored on this theory have lost their charm.) I incline to the thought so well and so definitely voiced by Viollet-le-Duc that there is a relation in principle between the asymmetry of Saint-Denis and the asymmetries of a Greek temple.

The same opinion has been definitely voiced by Auguste Choisy, who formally refers to the Greek refinements in his references to mediæval optical illusions and asymmetries.<sup>19</sup>

Neither does Mr. Prior's distinction between the "craftsman" and the "mystics and idealists" appeal to me when it classes the admirers of mediæval asymmetries with the latter. On this point Mr. Prior himself is dangerously near the mystics and idealists when his books are carefully studied. No one is more scornful than he about modern copies of the Gothic. No one is more eloquent than he in admiration for the irregularities of the mediæval workman. Why then deny

so sturdily that this artist may have been conscious of his own virtues and capable of devising, as well as producing and accomplishing, some of his effects? I must admit that I have no knowledge that Mr. Prior has ever even examined the evidence which is based on the comparison of varied measurements when arranged in sequences or in pairs. This evidence was offered at Edinburgh in the shape of plans, but could only be obtained from them by the careful examination which it was expected that they would receive. It was impossible for me to rehearse the matter of all my previous publications in the Catalogue.

The following quotation from Choisy's recent "History of Architecture" may not be amiss here. It follows his own list of Gothic optical illusions:

"These irregularities are visibly intentional. There are others which must be considered bad work.

"The distinction between the two is sometimes difficult.

"But if we consider the experimental and almost subtle spirit of the Gothic architects, we shall be convinced that there was more often calculation than negligence."<sup>20</sup>

Does Mr. Prior contest the gospel of Auguste Choisy, and if not, where does one gospel end and where does the other begin?

Mr. Prior's review exhibits an occasional use of the plural which tends to buoyant exaggeration. For instance, in regard to certain Italian churches he says: "Mr. Goodyear claims that he has visited and examined all these churches and knows their history, whereas his critics know them not." This use of the plural number, especially when it appears to be quoted as one of my "claims" that my critics are unfamiliar with Italian churches, really needs filing down—attenuating, so to speak. If Mr. Prior is voicing his own opinion that my critics have been generally unfamiliar with Italian churches, the statement again needs some revision. Is Mr. Prior thinking perhaps of the adverse critics, and modestly concealing his identity under the plural number? Here again the phrase breeds misconception, for he does not stand absolutely alone as an adverse critic. Mr. Prior has spoken for himself in this matter, but he will hardly wish to speak for others, when he thinks it over.

All this leads up to some thought of the very numerous other reviewers who have dealt with the observations represented by the exhibit at Edinburgh, and it will not be forgotten that these observations have been represented by a very considerable number of publications (and of consequent

<sup>19</sup> *Histoire de l'Architecture*, Vol. II, p. 412.

<sup>20</sup> "Ces irrégularités sont visiblement intentionnelles. Il en est qu'il faut mettre au compte des malfaçons.

"Entre les unes et les autres la distinction est parfois délicate.

"Mais si l'on songe à l'esprit chercheur presque subtil des architectes gothiques, on demeurera convaincu qu'il y a plus souvent calcul que négligence."—*Histoire de l'Architecture*, II, p. 411.



reviews) most of which long preceded the Edinburgh Catalogue, and most of which were much more copious in text in various special directions as regards the various special points considered in it. As hereinbefore mentioned, the last sentence of Mr. Prior's review is as follows:—"Mr Goodyear's gospel will be good tidings to the mystic and idealist, but to the craftsman it is foolishness." A very considerable number of craftsmen have made publications regarding this research. A very inconsiderable number of craftsmen who have made such publication have regarded this research as foolishness. Hence Mr. Prior's standing as an authority on English Gothic makes it important to point out that his final sentence is misleading, and to put it rather bluntly, it does not at all square with the facts.

Aside from many published utterances those craftsmen are not to be overlooked in the membership of the Edinburgh Architectural Association

who have formed a favourable opinion of the investigation, based on opportunities for an examination of the 300 exhibits which somewhat exceeded Mr. Prior's three hours' stay in the Scottish National Portrait Gallery.

This line of argument is not intended to belittle or diminish the authority of Mr. Prior, or the deference which may be due to his opinion. It is simply intended to qualify a statement which appears to be too sweeping, and which might even be considered by a captious or carping person to be presumptuous, and as waving aside altogether too summarily a very large number of expert and favourable criticisms. Let us rather only say that the statement is hasty, and that it carries with it, at least in appearance, the assumption of a right to speak for an entire body of architects of which body Mr. Prior and his friends are certainly important members, but certainly are not the only ones.

WM. H. GOODYEAR.

## Notes.

THE beauty of a city is one of its most valuable assets from any point of view, and anything which threatens to impair it in any way should be jealously watched by all public-spirited citizens. It is very disquieting to learn that damage or destruction is threatened to the trees on the Victoria Embankment, which are so essential to the appearance and comfort of that thoroughfare, and this in order to make way for the new London County Council tramways, which are to bring happiness (and South London) within the reach of all.

It appears that there is a Parliamentary instruction that the trams are to be set only 3 ft. away from the kerbs, though no reason is forthcoming, and despite the fact that this regulation has in no case been followed elsewhere. There seem obvious and particular reasons why it should not be observed on the Victoria Embankment, as there we have a fine line of trees—a most important element in one of the finest views in London—which must suffer if the cars are allowed to come so close to the pavement, though probably the use of single-deck cars, even then, would not necessitate the mutilation of the trees. If double-decked cars are used, however, it would be a very different matter. But why, again one would ask, should double-deck cars be used on the Embankment at all? It was understood, to begin with, when the County Council proposed to make this connection between the North and South tramway systems, that the cars would proceed straight

through from, say, Highgate to Tooting. It should be remembered, however, that the subway which has been built from Theobald's Road to the Strand, and which is eventually to merge on the Embankment, is not high enough for anything more than single cars. This will necessitate a change from the single to the double-decked cars, which might just as well be arranged on the other side of the river as on the Embankment.

The motor 'bus is not exactly a thing of beauty, and, if a joy at all, is rather a fearful one; but it is preferable to a tramway, though in London we are saved from the ungainly posts and overhead wires which ruin the beauty and comfort of many towns. One had some hopes that the development of the former might prove a substitute for the tram. Tramways have, however, ruined the appearance of every town of importance already, and the endless clang of their bells must have permanently weakened the nerves of whole populations. It seems a heavy price to pay for cheap transit. Anyway, it would be simply barbarous to destroy the beautiful belt of trees on the Embankment when a little thought and careful planning would both meet the necessities of the public and preserve to them what after all is a valuable public possession.

WALTER CRANE.

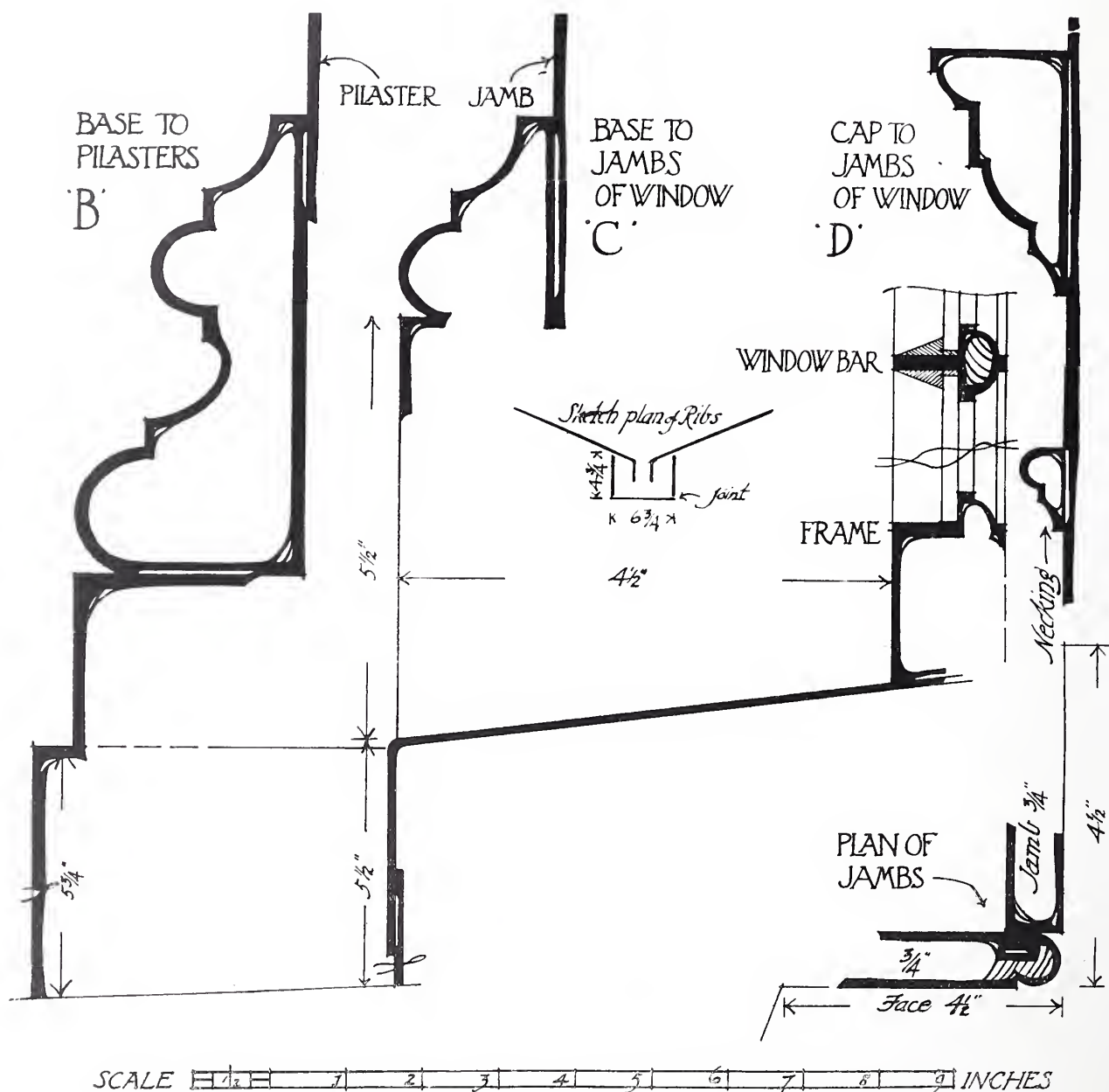
\* \* \* \* \*

ALPHABET COMPETITION.—Designs from "Kingfisher," "Capstone," "Arrow," "Birdie," and "Jacko" (3), have been received up to Sept. 22.



# The Practical Exemplar of Architecture.

## VI.—Cupolas.



CUPOLA, CLARE COLLEGE, CAMBRIDGE.

MEASURED AND DRAWN BY G. HERBERT PARRY.

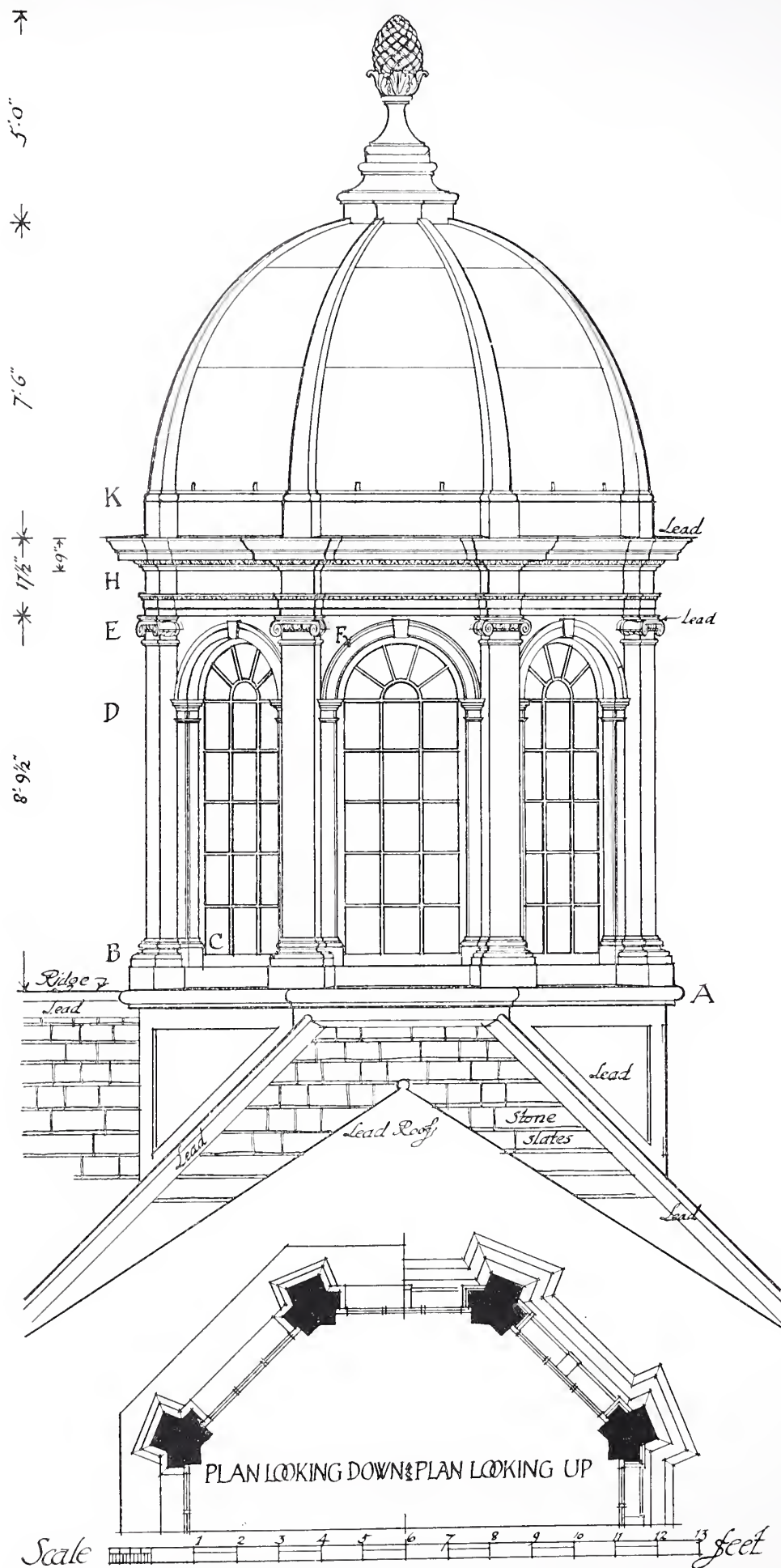




*Telephoto: Arch. Rev.*

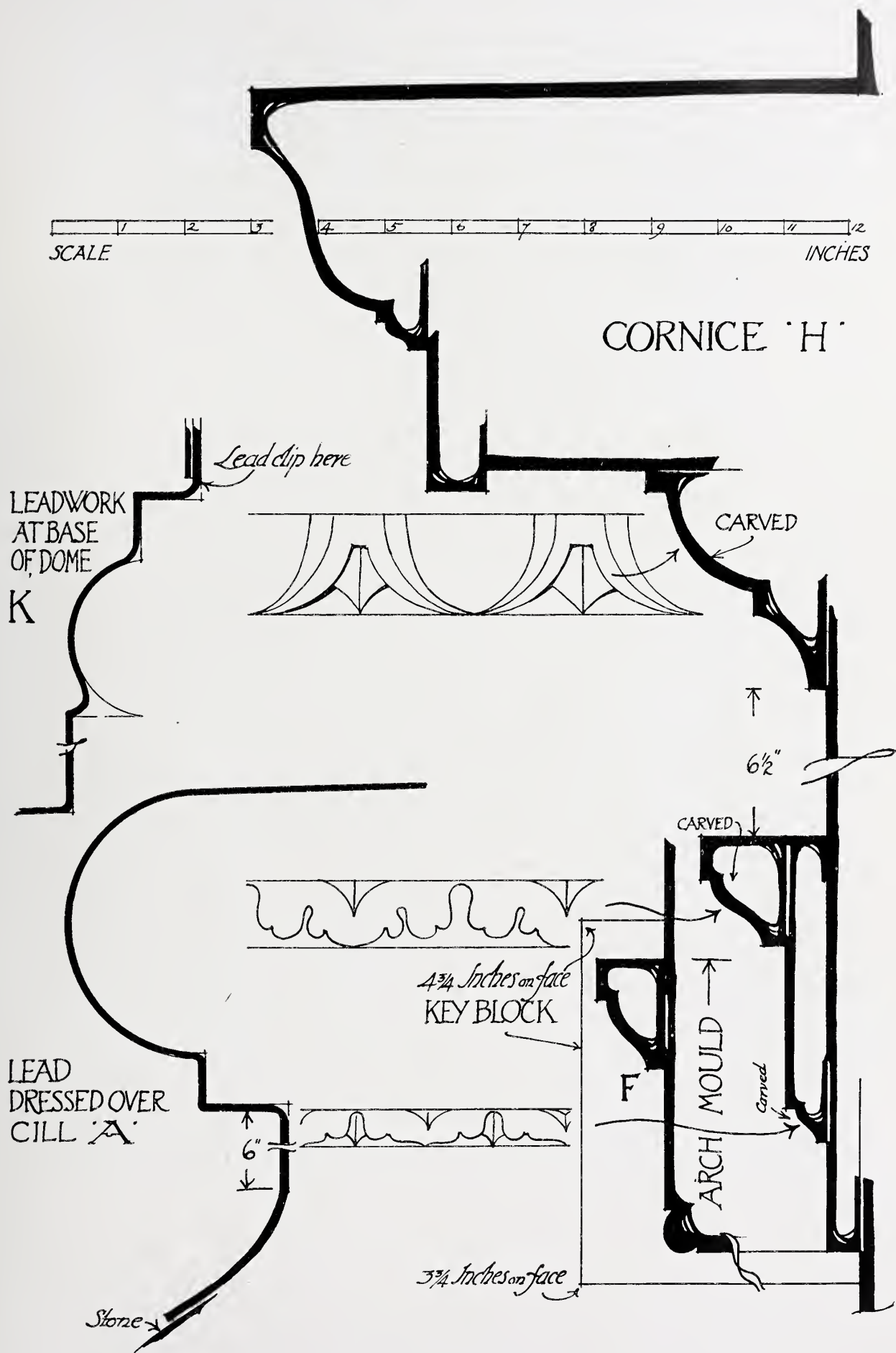
CUPOLA, CLARE COLLEGE, CAMBRIDGE.





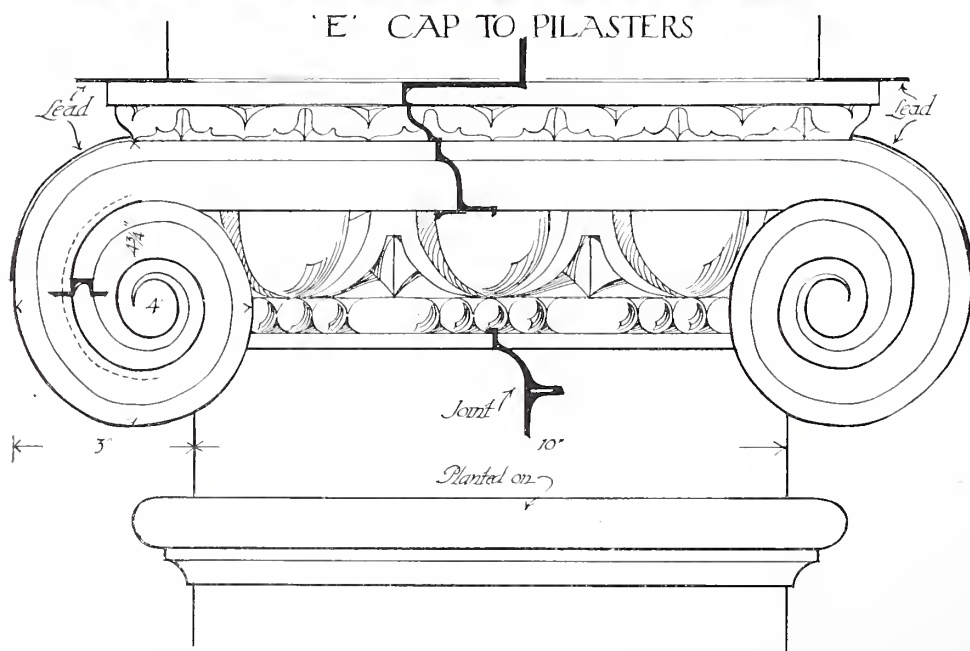
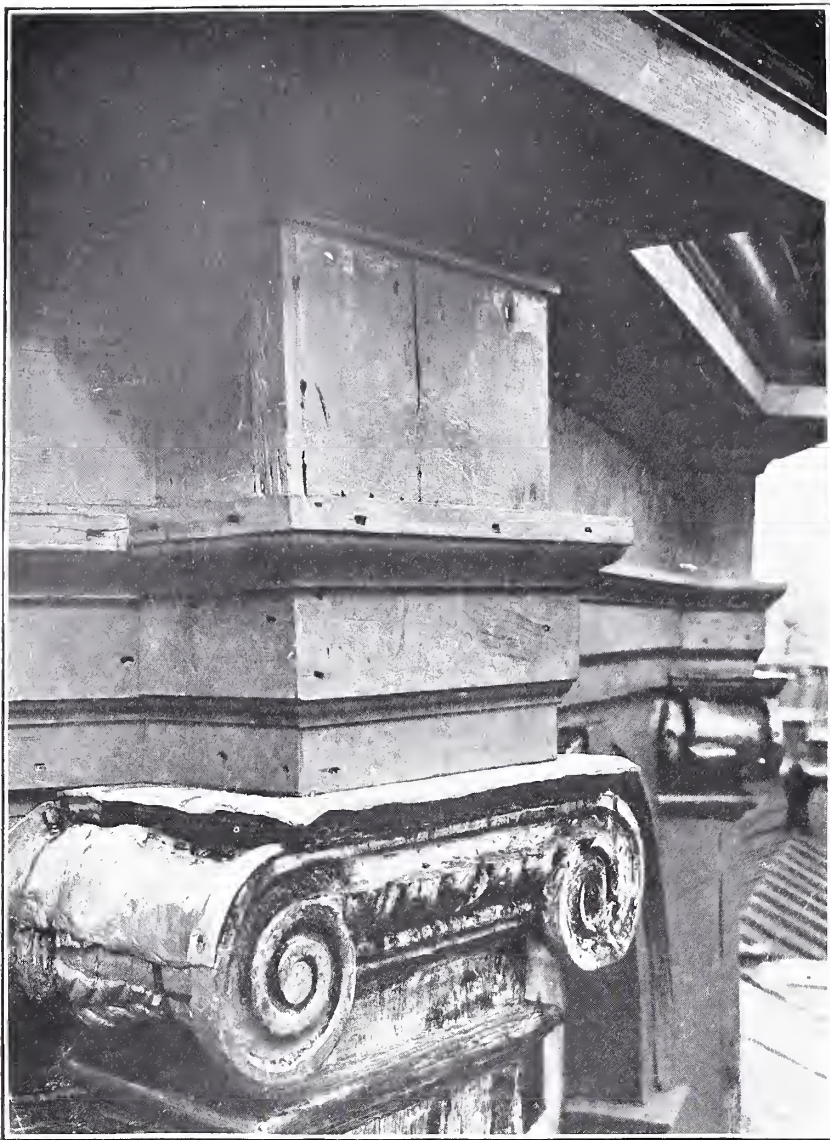
CUPOLA, CLARE COLLEGE, CAMBRIDGE. ELEVATION AND PLAN.  
MEASURED AND DRAWN BY G. HERBERT PARRY.





CUPOLA, CLARE COLLEGE, CAMBRIDGE. DETAILS.  
MEASURED AND DRAWN BY G. HERBERT PARRY.





CUPOLA, CLARE COLLEGE, CAMBRIDGE.

PILASTER CAPITAL. VIEW AND DETAIL.





*Photo: E. Dockree.*

CUPOLA, ALL HALLOWS, LONDON WALL.

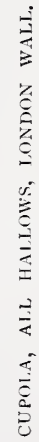




*Photos : Arch. Rev.*

CUPOLA, ALL HALLOWS, LONDON WALL.  
DETAIL VIEW OF UPPER AND LOWER PART.



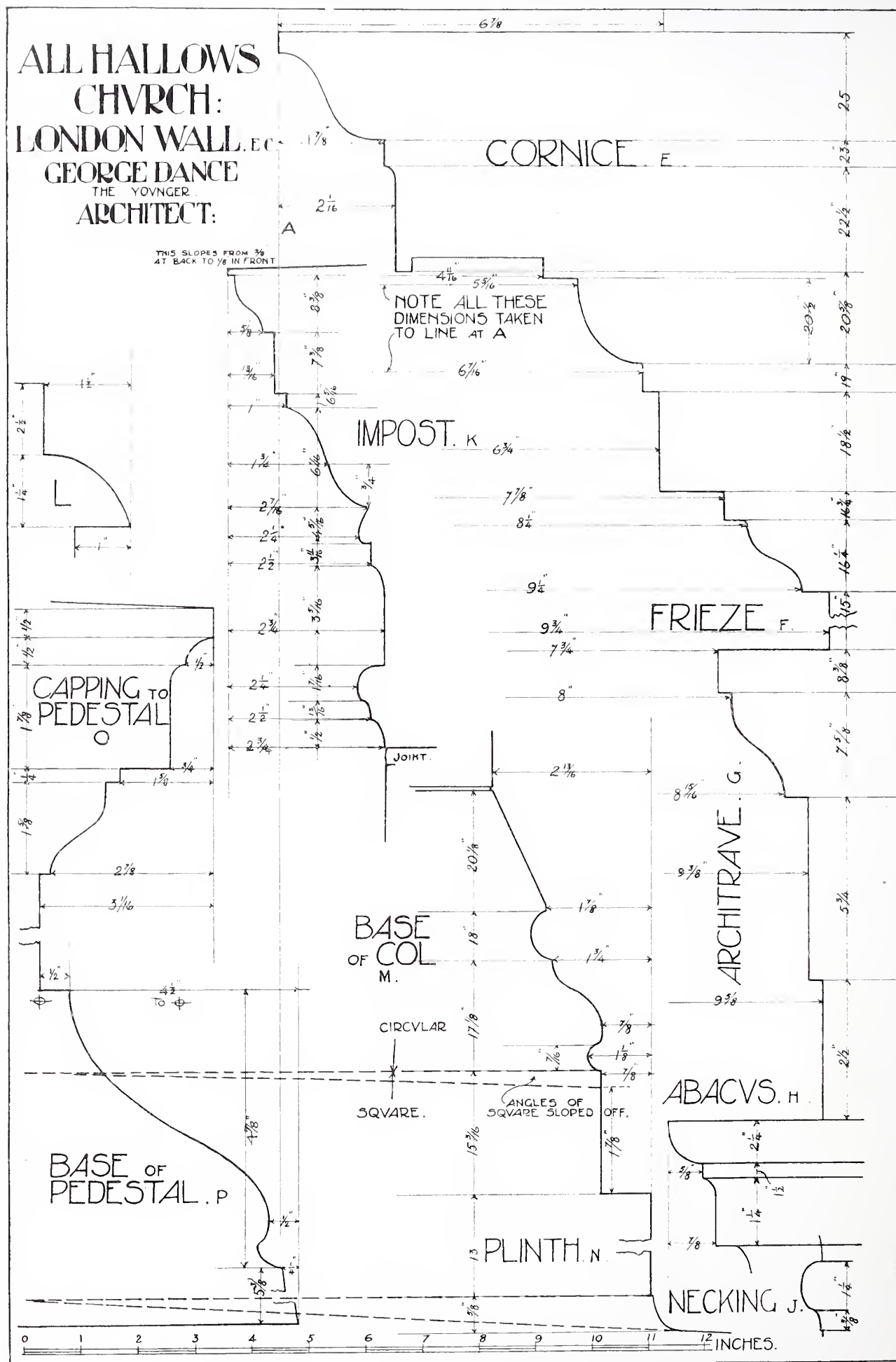


ALL HALLOWS CHVRCH:  
LONDON WALL:E.C:

GEORGE DANCE THE YOUNGER ARCHITECT:

**NOTE** BRICK CORRELLING, CIRCVLAB ON PLANT GRADUALLY RECEDES FROM POINTS D UNTIL AT SILL OF WINDOW. S BELOW SPRINGING OF TOWER, REACHES ANGLE OF 40° TOWARD WHERE CORRELLING MEETS 40CH. LEANS FORWARD TO MEET CORRELLING. . . . .





CUPOLA, ALL HALLOWS, LONDON WALL.



# Current Architecture.

"HALLYBURTON," COUPAR-ANGUS, FIFE-SHIRE.—Of the original house of "Hallyburton" practically nothing remains; the main portion of the existing house was built thirty years ago, and the plan shows the additions recently carried out for W. G. Graham Menzies, Esq., the elevators being treated in a somewhat similar manner to those existing. The dining-room takes the place of a smaller room that along with some servants' offices was removed. When the proportions of the new dining-room had been roughly settled, but before it was built, the tapestries shown in the illustrations were purchased in Paris, the finishings and electric-light fittings, etc. for the room were then designed, and the work carried out as shown. The ceilings, walls, and floors are of Austrian oak, fumed and dry-waxed. The walls of the corridor, business-room, and billiard-room are also carried out in oak. The house is built of stone from the estate quarry, with a space and

a brick lining. The floors are Stuart's granolithic fireproof floors. Messrs. John Watherston & Sons, of Edinburgh, were the general contractors for the work, and they also carried out the oak work. The heating was executed by Messrs. Mackenzie and Moncur, Ltd., of Edinburgh. The ceiling of the business-room, etc. was carried out by the Bromsgrove Guild, and the electric-light fittings were also executed by them from the designs of the architect, Mr. R. S. Lorimer, A.R.S.A.

ALTERATIONS AND DECORATIONS AT SHOT-TESBROOKE PARK, MAIDENHEAD.—These rooms illustrated had originally plastered walls, papered. They have been panelled and decorated from designs by Messrs. W. Dunn and R. Watson, of 35, Lincoln's Inn Fields, London. The work was carried out by Messrs. J. K. Cooper & Sons, of Castle Hill, Maidenhead. The models for plaster wreaths and cornices and the whole of the



ELECTRIC FITTINGS AT "HALLYBURTON," FIFESHIRE.

R. S. LORIMER, ARCHITECT.



Photo: T. Lewis.



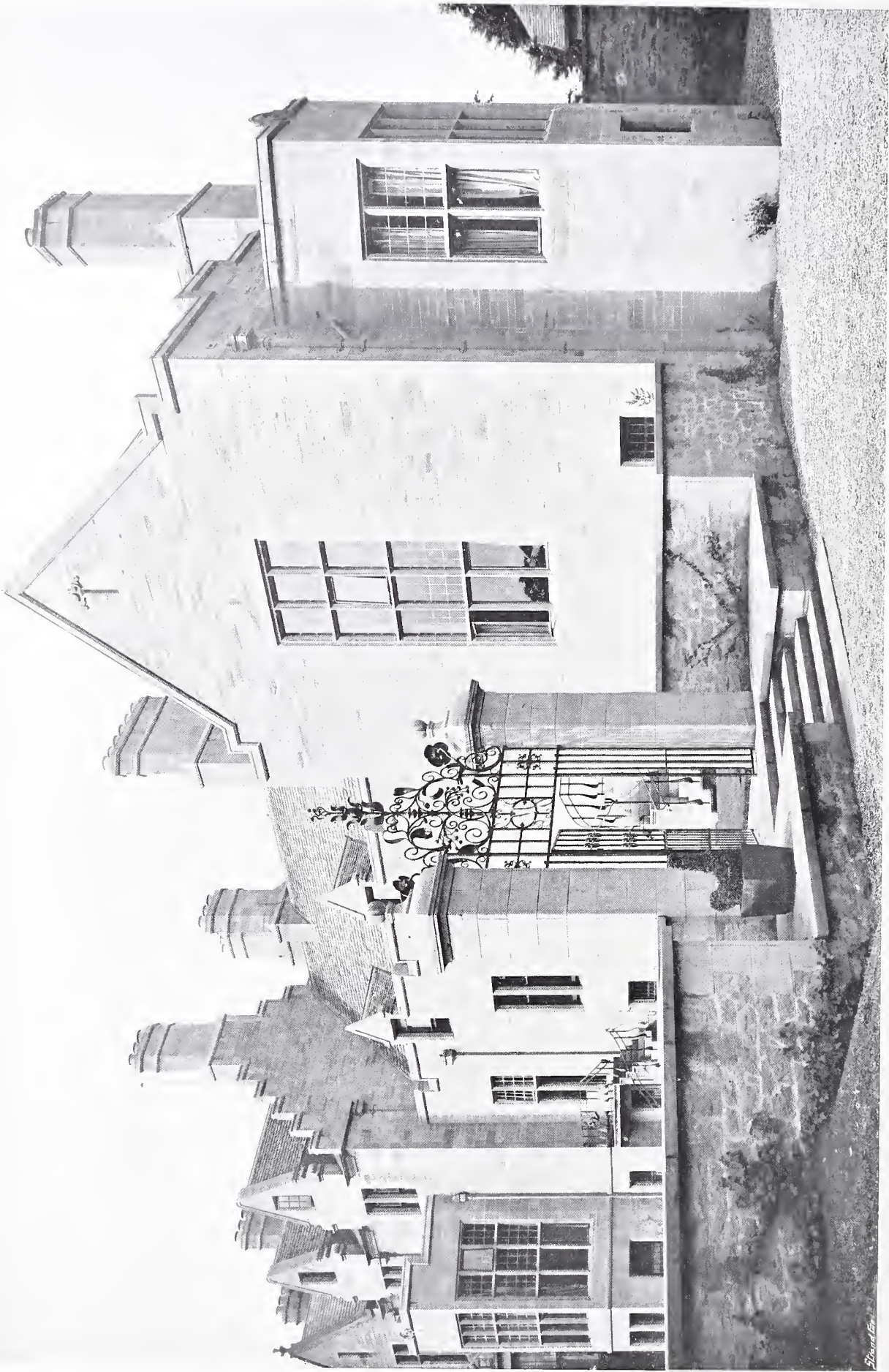


Photo: Bedford Lemere & Co.

ADDITIONS TO "HALLYBURTON," FIFESHIRE. R. S. LORIMER, A.R.S.A., ARCHITECT.





Photo: Bedford Lemere & Co.

ADDITIONS TO "HALLYBURTON," FIFESHIRE. THE DINING-ROOM.  
R. S. LORIMER, A.R.S.A., ARCHITECT.





ADDITIONS TO "HALLYBURTON," FIFESHIRE.

R. S. LORIMER, A.R.S.A., ARCHITECT.

*Photo: Bedford Lemere.*

carving were executed by Mr. W. Aumonier, of New Inn Yard, London, W. The whole of the carving and woodwork is in yellow pine, the marble jambs of the chimneypieces being cipolino. The walls and ceilings are all painted and white flatted. The small key plan on p. 178 shows the position and sizes of these rooms. The building is heated on Milne's Duplex system.

"THE OLD POUND HOUSE," WIMBLEDON. This house was built in 1902 for Frank Bullock, Esq., by Messrs. Hubbard & Moore, architects. The building is situated at the corner of two roads, the western front facing the "Old Pound" on Wimbledon Common and the southern aspect facing Park Side Gardens. The four reception-rooms have therefore been arranged to take





ADDITIONS TO "HALLYBURTON," FIFESHIRE. THE BUSINESS-ROOM.

*Photo: Bedford Lemere.*

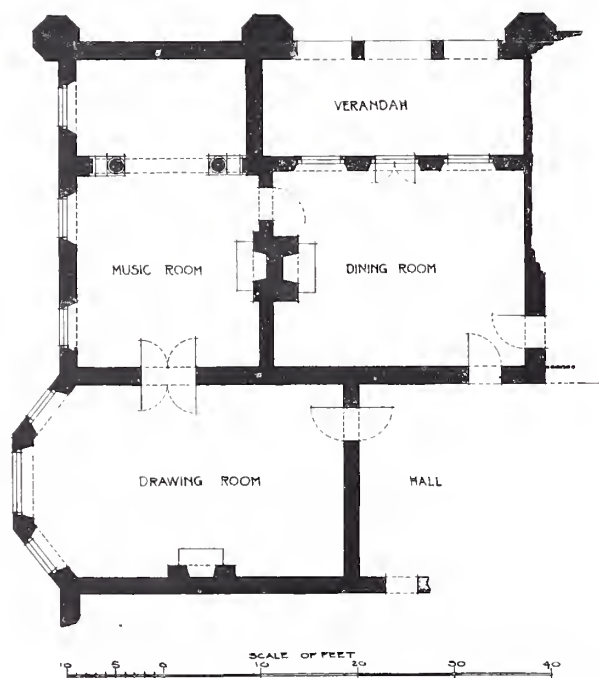
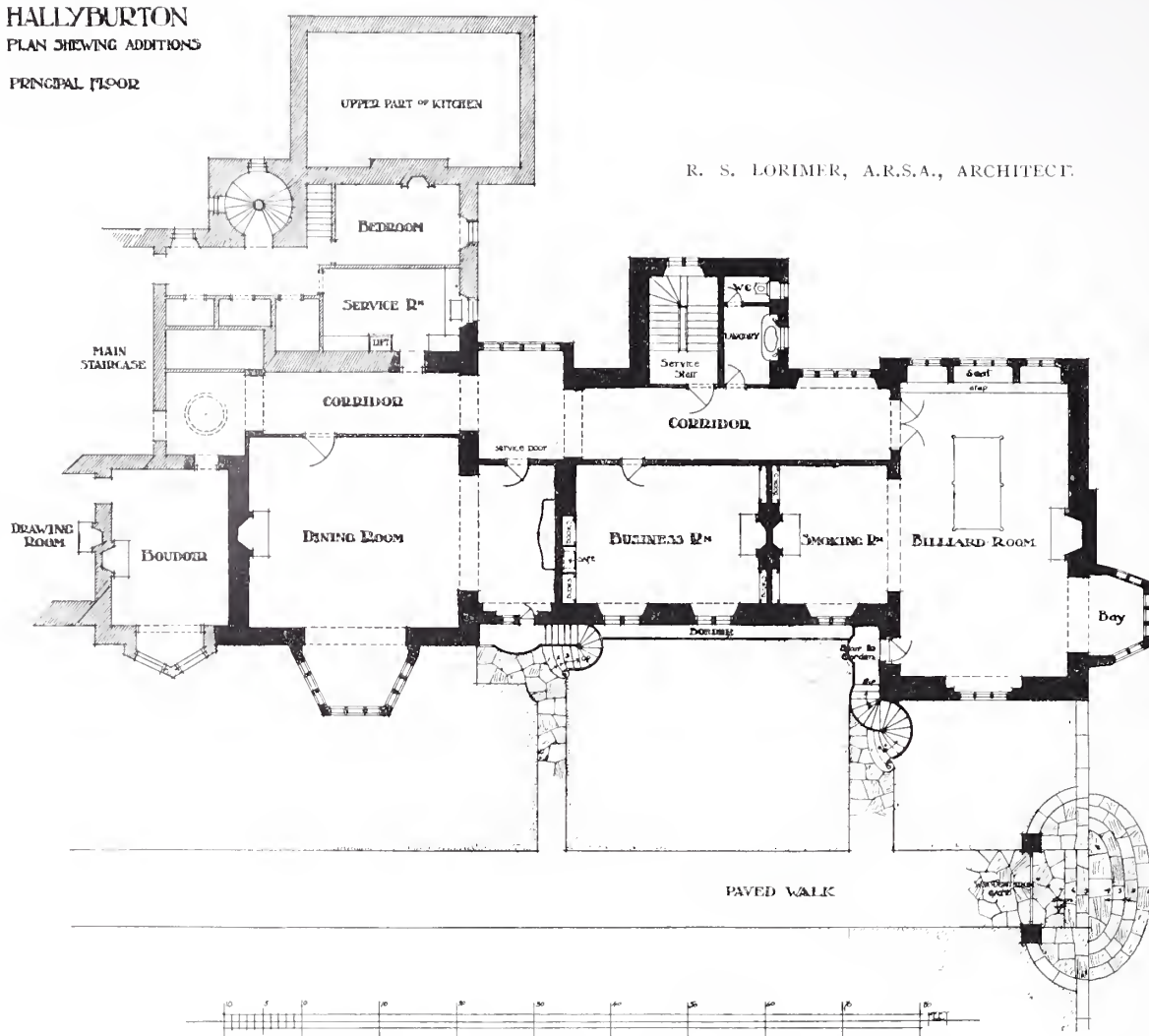
R. S. LORIMER, A.R.S.A., ARCHITECT.

advantage of these frontages. Privacy is obtained by the frontage line of the main building being set back a considerable distance from the road boundaries, and the building is further protected by the foreground of trees which are preserved behind a high boundary wall. The plan adopted is a parallelogram having the main entrance towards the centre of the western façade, with hall

and staircase centrally situated at the rear. By this arrangement all the reception-rooms are entered directly from the central hall, and communication between the house and the kitchen is distinct. The principal bedrooms on the first floor are over the ground-floor reception-rooms, with access to them from a wide central landing over the hall below. The bath-room, lavatory, w.c.,



HALLYBURTON  
PLAN SHEWING ADDITIONS  
PRINCIPAL FLOOR



ALTERATIONS AT SHOTTESBROOKE PARK,  
MAIDENHEAD.

W. DUNN AND R. WATSON, ARCHITECTS.

and housemaid's sink are separately situated in a "sanitary" block apart from the bedrooms, and yet convenient of access from them. The attics have two bedrooms for visitors and two for servants, and also contain a housemaid's closet, box-room, and tanks. The materials used in the elevations are grey-red brindled facing bricks from Crowborough, Kent, with dark red bricks to the arches, quoins, chimney-tops, devices, etc. The tiles are dark brown hand-made Broseley. The outside shutters are painted dark green and all other woodwork white. All the interior panelling, chimney-pieces, book-cases, linings, and architraves are finished in white enamel, and oak has been used for the main staircase and floors in the hall, reception-rooms, and corridors. The vestibule and lavatories, etc., are in black and white Sicilian marble. The general contractor for the work was Mr. F. G. Minter, of Ferry Works, Putney. Messrs. Hill & Smith carried out the wrought-iron gates and railings. Messrs. A. How & Co. carried out the electric-light and bell-wiring and fittings, Messrs. W. Morris & Co. the special glazing, and Mr. J. Gibbons the locks and fastenings.





*Photo: E. Dockree.*

ALTERATIONS AND DECORATIONS AT SHOTTESBROOKE PARK, MAIDENHEAD.  
THE MUSIC-ROOM CHIMNEYPiece.  
W. DUNN AND R. WATSON, ARCHITECTS.



*Photo: E. Dockree.*

ALTERATIONS AND DECORATIONS AT SHOTTESBROOKE PARK, MAIDENHEAD.  
 THE MUSIC-ROOM FROM THE DRAWING-ROOM.  
 W. DUNN AND R. WATSON, ARCHITECTS.





Photo: F. Dockree.

ALTERATIONS AND DECORATIONS AT SHOTTESBROOKE PARK, MAIDENHEAD, THE DINING-ROOM.  
W. DUNN AND R. WATSON, ARCHITECTS.



*Photo: E. Dockree.*

ALTERATIONS AND DECORATIONS AT SHOTTESBROOKE PARK, MAIDENHEAD.  
 THE DRAWING-ROOM CHIMNEYPIECE.  
 W. DUNN AND R. WATSON, ARCHITECTS.





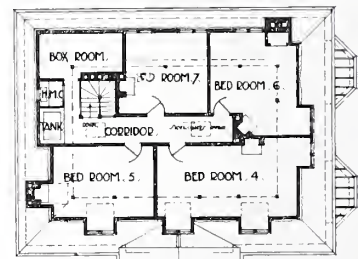
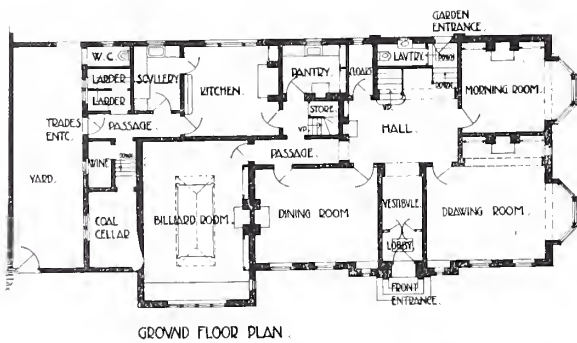
Photo: E. Deckere.

ALTERATIONS AND DECORATIONS AT SHOTTESBROOKE PARK, MAIDENHEAD,  
THE DRAWING-ROOM.  
W. DUNN AND R. WATSON, ARCHITECTS.



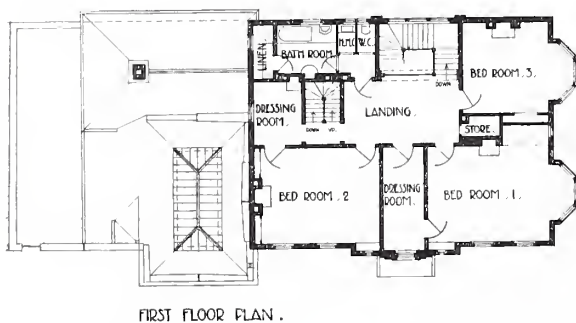


"THE OLD POUND HOUSE," WIMBLEDON. THE HALL.  
HUBBARD AND MOORE, ARCHITECTS.



SCALE OF 0 10 20 30 40 50 FEET.

HUBBARD & MOORE,  
ARCHITECTS,  
112, PENINSULAR ST. E.C.



"THE OLD POUND HOUSE," WIMBLEDON.  
PLANS.





"THE OLD POUND HOUSE," WIMBLEDON. ENTRANCE FRONT.  
HUBBARD AND MOORF, ARCHITECTS.





"THE OLD POUND HOUSE," WIMBLEDON. SIDE AND GARDEN FRONTS.  
HUBBARD AND MOORE, ARCHITECTS.



# THE BELFAST CITY HALL.



*Photo : A. R. Hegg.*

A. BRUMWELL THOMAS, Architect.





Photo: A. R. Hogg.

GENERAL VIEW OF THE BUILDING.



# The Belfast City Hall.

THE City Hall stands in the centre of Donegall Square, and covers an area of about an acre and a half of the gardens in the centre of the square. The building is designed in quadrangular form, with an internal courtyard, in the style of the Classic Renaissance, carrying on the traditional architecture of the seventeenth and eighteenth centuries.

The commanding situation of the building, and the sense of space about the square, lend a dignity and magnificence to the structure which may be said to be without parallel throughout the kingdom, and the added charm of a flower garden bordering the principal public streets brings a sense of restfulness and repose seldom attained in a great commercial city.

Since the removal of the Old Linen Hall, which formerly occupied practically the whole of the site, the council have had under consideration not only the building of a City Hall, but the laying out of the principal square of the city, of which the building forms the centre, conforming in proportion to its situation within the square, and at the same time dominating the whole of the city.

A view of the square from a position outside the city will show how important a place the dome and towers of the City Hall take in the general architecture of the city.

The grounds surrounding the building are laid out in the form of a public garden, in which are placed groups of statuary, the central group representing Queen Victoria, with bronze figures on either side of the marble pedestal denoting Shipbuilding and Spinning, by Mr. Thomas Brock, R.A.

A statue to Sir Edward Harland and the Royal Irish Rifles War Memorial stand to the left of the Queen's Memorial.

In the West Garden stands the memorial to the first Marquess of Dufferin, with a bronze figure under a stone canopy, and a bronze group on either side representing Canada and India, the joint work of Mr. Frederick Pomeroy, A.R.A., and myself.

The main façade of the building is 300 ft. long, and the sculpture in the great pediment at the centre, by Mr. Pomeroy, represents Hibernia wearing a mural crown, bearing the torch of knowledge, a symbol of light and advancement, her right hand resting on the harp, the emblem of

her nationality. To the right stands Minerva, attended by Mercury the Messenger, to whom Industry and Labour are looking for prosperity. On the left stands Liberty, awarding the palm branch to Industry, a female figure offering a roll of finished linen; at her feet sits another figure with the Irish spinning wheel, while the youth and energy of the country are expressed by the boys' figures watching intently the passing events. The other industries are represented by figures typifying Shipbuilding, Design, etc.

The external façades are enriched with an Ionic order of columns above a heavily rusticated basement storey, surmounted by an entablature and balustrade reaching a height of 55 ft. above the ground. Above the parapet, at the four corners of the building, the four angle towers rise to a height of 115 ft.

The crowning feature of the building is the great peristylular dome over the grand entrance. It reaches a total height of 173 ft., terminating with a stone lantern above the copper dome.

The building provides accommodation for the officials and their staffs of all departments engaged in the work of the city, and also includes a grand suite of reception rooms for civic functions, and a private suite of rooms for the use of the Lord Mayor.

Reference to the plans will explain the grouping of the various departments in the building, and it will be seen that the arrangement of each room in connection with its department, and of the departments in connection with one another, has all been designed to facilitate the intercommunication between one department and another in a manner that should lead to economy in the administration of the business of the council within the hall, and also in relation to the public. It will be seen that the ground floor is occupied by the town clerk's department, the city surveyor's department, and the city cashier's department, with the addition of two rooms for the payment of rates—one being for the use of the gas department and the other for the accountant's department. On the first floor are placed the suite of principal rooms and the Lord Mayor's private suite, with a number of departments facing Donegall Square South, including the city accountant's, the medical officer's, the electrical engineer's, and the gas department; the upper floor being allocated to the education,



works, markets, and weights and measures departments.

A fine impression of the interior of the building is gained on entering the entrance hall, which is approached through the stone portecochère and the octagon vestibule. It is 70 ft. by 40 ft., and rises to a height of over 100 ft., terminating in the dome 42 ft. in diameter. The walls of the ground floor are of Pavonazzo and Brescia marbles with a black marble plinth, the paving in the hall being black and white marble with a radiating centrepiece.

The grand staircase is approached from the entrance hall, and is in Carrara, Pavonazzo, and Brescia marbles, the domical ceiling being treated with modelled plaster-work. The staircase is lighted by a range of seven three-light windows filled with stained glass, in which the successive stages in the history of the corporation have been portrayed, starting with the date of the original charter, and giving the names of the first sovereign and the twelve burgesses whose names appear on the charter.

In the three windows over the landing are placed the arms of Belfast in the centre, with a portrait of the King and Queen on either side, the lunette in the tympanum of the main arch being emblazoned with the royal arms of the date of the incorporation of Belfast.

Ascending to the first floor, the principal landing is reached, from which an adequate view of the dome is obtained; this landing is enriched with marble work of similar design to the entrance hall below, but with the addition of a colonnade of Greek cipollino marble, with white statuary marble caps and bases on a plinth of black marble. Above this colonnade rise the four main arches, on which the drum of the dome is developed, and, above the whispering gallery, the range of nine peristyle windows is filled with stained glass, showing the signs of the zodiac alternately with the ship and bell which form quarters of the Belfast arms, the whole area being covered with an elaborately panelled dome, enriched with modelled plaster-work of fine design and workmanship, and above the eye of the dome a secondary miniature dome rises on a circular colonnade.

From the centre of the dome is suspended the large bronze electrolier of 100 lights, enriched with cast bronze decorative figure-work giving support to the clusters of electric lamps.

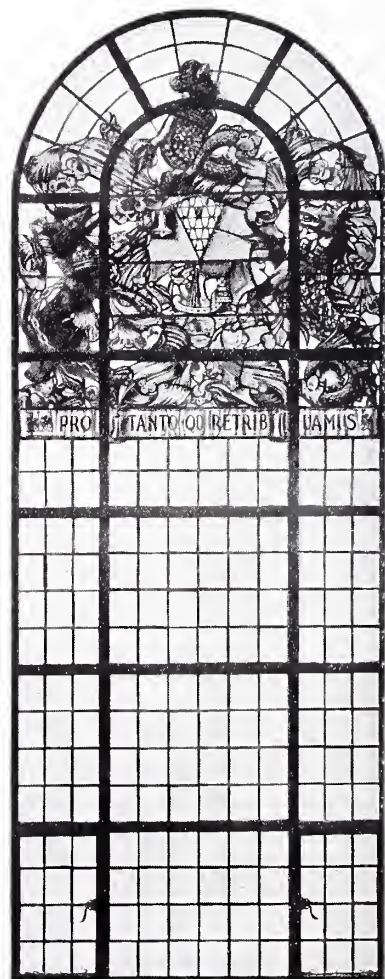
Staircases are provided at either end of the dome, giving access to the whispering gallery, peristyle, and lantern, from each of which a fine view of the city is obtained.

The reception room is approached by ascending the grand staircase and crossing the landing under

the dome. It is an apartment 70 ft. long by 26 ft. wide, spanned by a barrel vault, terminating at either end by panelled semi-domes, the whole ceiling being enriched with modelled plaster-work. The three windows are filled with stained glass, showing the arms of the city, with the royal arms of Edward VII. and the arms of Lord Chichester on either side. The entablature, which is 17 ft. above floor level, is supported by Ionic columns with enriched capitals, etc., and the walls are panelled in wainscot oak.

Communicating with the reception room is a banquetting hall, 68 ft. long by 38 ft. wide, surmounted by a dome rising to a height of 36 ft., the vaults and domed ceiling being enriched with modelled plaster-work. The walls are panelled to a height of 9 ft. in wainscot oak enriched with carving, and the windows are filled with stained glass showing the royal arms, the arms of Belfast, and the arms of Lord Donegall and Lord Shaftesbury.

The council chamber also communicates with the reception room, and is 68 ft. long by 38 ft. wide, the centre bay having arches springing from piers 17 ft. high, terminating in a dome of original treatment in modelled plaster, the two end bays having curved panelled vaults. The wainscot oak panelling in this room is enriched with carving, as are also the balconies for the public and the press. The seating for the members of the council is arranged on the House of Commons principle, having a centre gangway 10 ft. wide, at one end of which is placed the raised dais, with an oak screen with three carved and pierced panels forming a background for the Lord Mayor's chair. The whole of the members' seats, etc., are covered with green



THE CENTRAL WINDOW.







morocco leather, stamped with the city arms in gold.

The stained glass in the windows shows the royal arms, the Belfast arms, and the arms of Lord Dufferin and Lord Londonderry.

Adjoining the council chamber is the members' ante-room (in which each member is provided with a private locker), with retiring room, robing room, etc., directly connected with the council chamber.

The suite of principal rooms, including the council chamber, the banqueting hall, and the reception room, terminates in the great hall, which is 120 ft. long by 57 ft. wide, covered with a vaulted ceiling rising to about 40 ft. above the floor. The entablature, which is 23 ft. above the floor, is supported by a range of coupled Corinthian columns. The room is lighted with seven stained glass windows, in three of which are shown the portraits of the sovereigns who have visited Belfast, viz., King William III, Queen Victoria, and King Edward VII, and in the remaining four the shields of the provinces of Ireland.

The hall will accommodate an audience of 1,000

persons, and includes a gallery at one end which will accommodate 250, with a stage for concert performances at the other end. Immediately behind the stage are ranged the retiring rooms for performers with a separate entrance from the street, and there is a large refreshment room adjoining the hall, with servery, kitchen, etc.

The cloak-room accommodation in connection with the hall is arranged on the ground floor leading out of the entrance hall, which is 40 ft. square, divided into bays with columns supporting arches terminating in flat saucer domes. The whole of this entrance hall is treated very simply, but the staircase leading to the first floor is executed in more elaborate form in modelled plaster-work. The hall is amply provided with exits, and in the event of a panic could be cleared in a very short time.

Leading out of the entrance hall are the two principal committee rooms, one for the Law Committee and the other for the Improvement Committee, each being 40 ft. long by 30 ft. wide and 16 ft. high. These rooms are panelled and furnished en suite in wainscot oak, with columned and pedimented chimney-pieces.

A. BRUMWELL THOMAS.

## THE BELFAST CITY HALL.

A. BRUMWELL THOMAS, Architect.

FREDERICK POMEROY, A.R.A., Sculptor.

JAMES G. GAMBLE, Clerk of the Works.

H. & J. MARTIN, Ltd., Belfast, General Contractors.

Contractors' Representative, THOMAS LEISHMAN.

### SUB-CONTRACTORS.

Heating and Ventilation—ASHWELL & NESBITT, Ltd., London.

Marble Work—FARMER & BRINDLEY, London.

Constructional Steel Work—CLYDE STRUCTURAL IRON CO.; P. & W. McLELLAN, Glasgow.

Stained Glass—WARD & PARTNERS, Belfast; CAMPBELL BROTHERS, Belfast.

Plaster Work—GEORGE ROME & CO., Glasgow.

Modelling—THE BROMSGROVE GUILD, Bromsgrove.

Electrical Work—WILLIAM COATES & SONS, Ltd., Belfast.

Hydrants—WILLIAM COATES & SONS, Ltd., Belfast.

Lifts—WILLIAM COATES & SONS, Ltd., Belfast; THE MEDWAY LIFT CO., London.

Carving—PURDY & MILLARD, Belfast; H. H. MARTYN & CO., Ltd., Cheltenham; J. E. WINTER, Belfast.

Plumbing and Sanitary Work—JOHN DOWLING, Belfast.

Electric Fittings—J. W. SINGER & SONS, Frome.

Wrought Ironwork—FRANCIS RITCHIE & SONS, Belfast.

Clocks—GIBSON & CO., Belfast.

Strong-room Doors—MILNER & SONS, London.

Hot Water Service—MUSGRAVE & CO., Belfast.

Mosaic Pavings—DIESPEKER, Ltd., London.

Wood Block Flooring—ELLIS, GEARY & CO., London.

Safes—THOMAS SKIDMORE & SONS, Wolverhampton.

Locks, etc.—JAMES GIBBONS, Wolverhampton.

Carpets, Blinds, etc.—GILLESPIE & WOODSIDE, Belfast.

Furniture—H. & J. MARTIN, Ltd., Belfast; GOODALL, LAMB & HEIGHWAY, Ltd., Manchester; MAGUIRE & EDWARDS, Belfast; HAMPTON & SONS, London; and PARTRIDGE & COOPER, London.

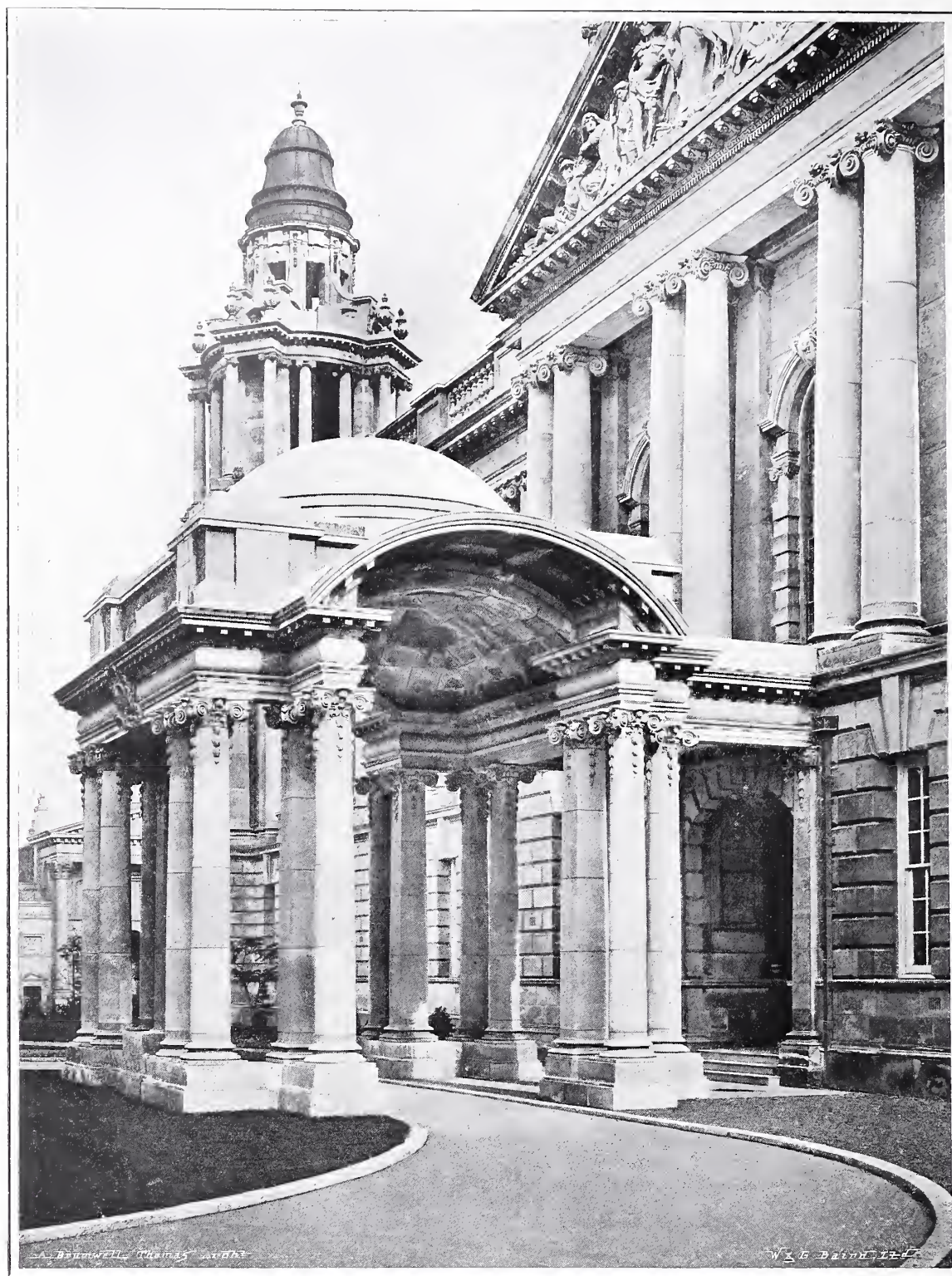




*Photo: A. R. Hogg.*

BIRD'S-EYE VIEW.



*Photo: A. R. Hogg.*

THE PORTE-COCHERE AT THE GRAND ENTRANCE.





*Photo : A. R. Hogg.*

THE DOME FROM THE CENTRE COURT.



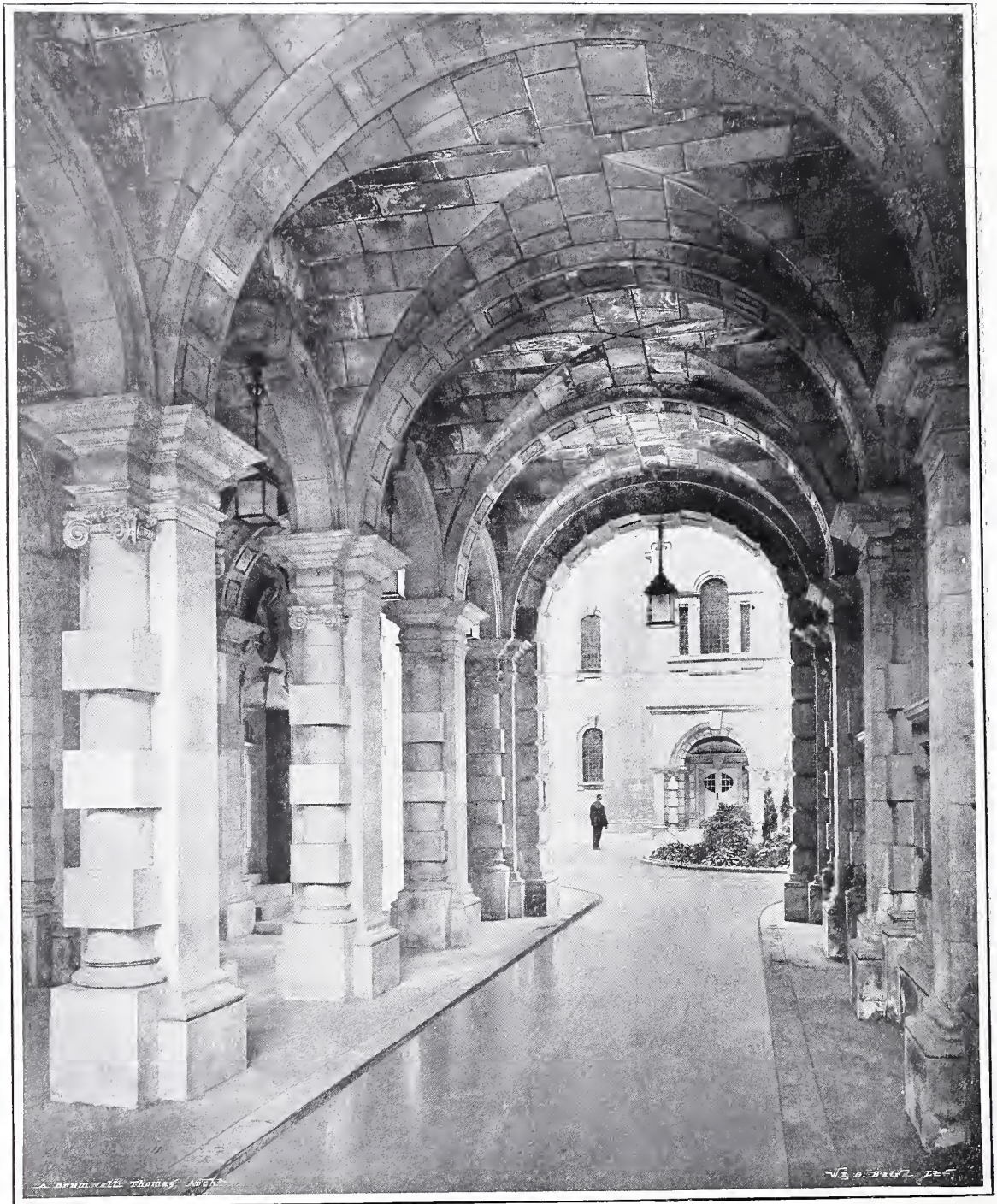
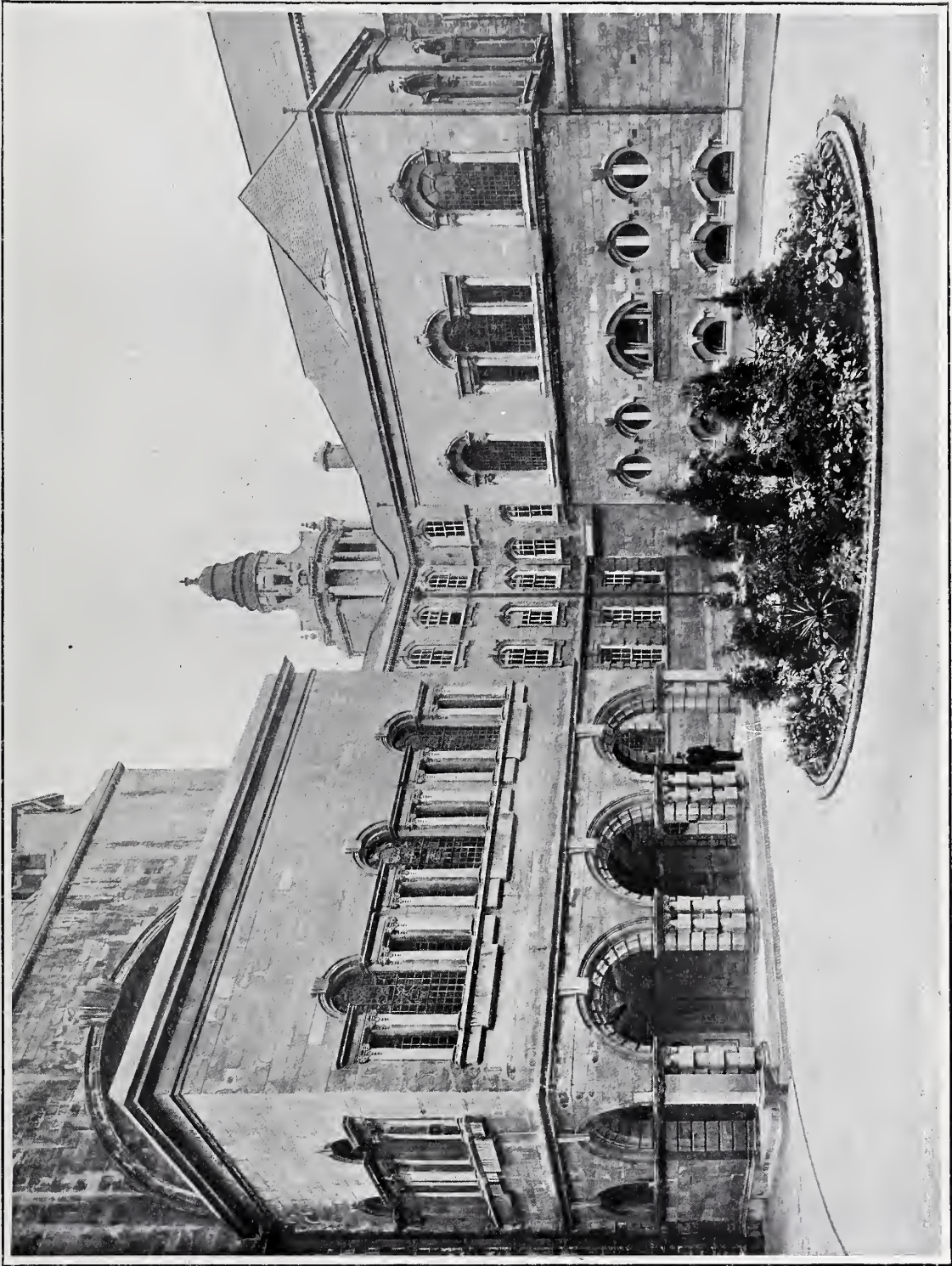


Photo : A. R. Hogg.





*Photo: A. R. Hogg.*

THE CENTRE COURT,



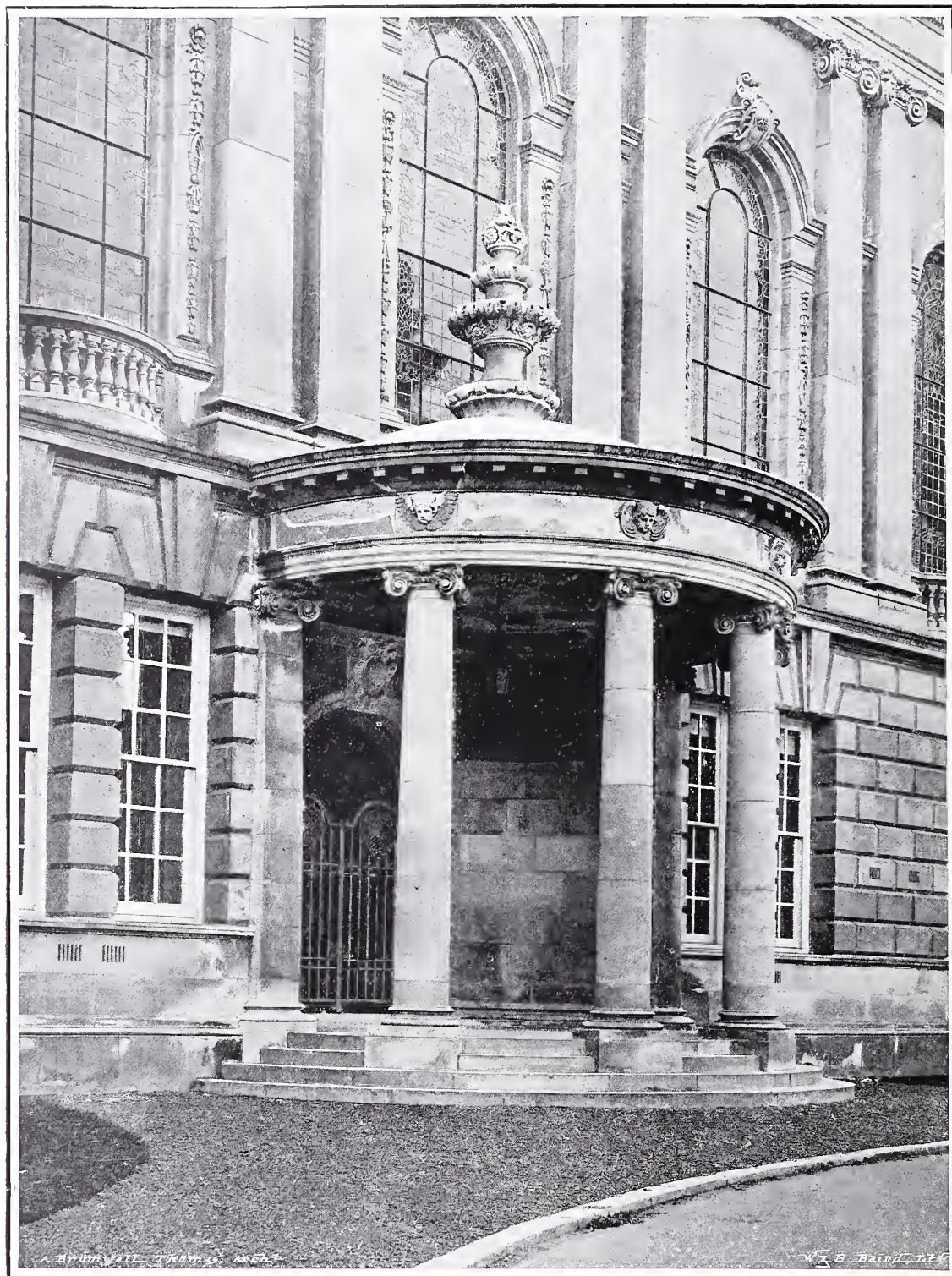


Photo : A. R. Hogg.



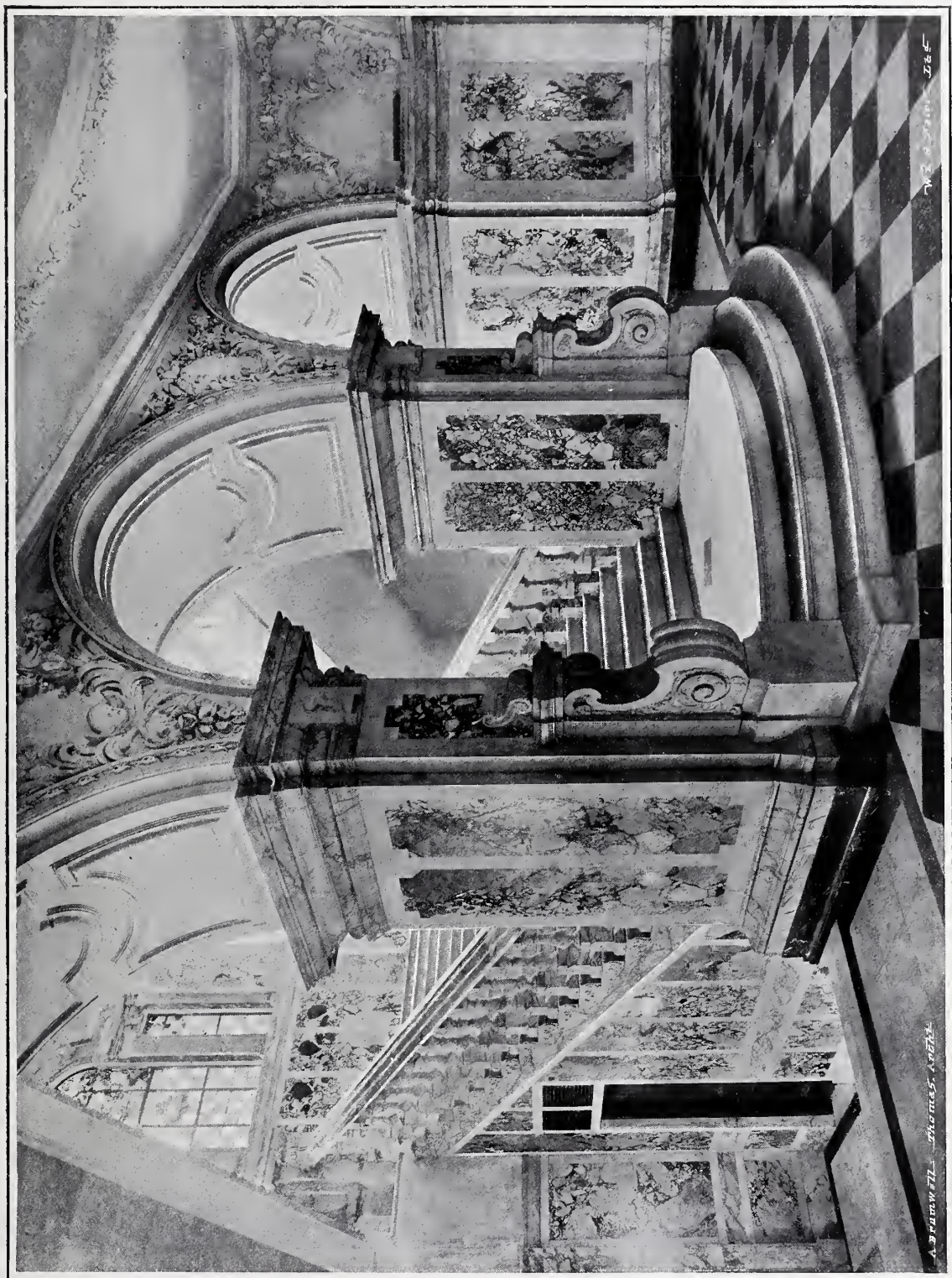


Photo: A. R. Hogg.

THE GRAND STAIRCASE.









Photo : A. R. Hogg.

THE GRAND STAIRCASE, PRINCIPAL FLOOR LEVEL.





*Photo : A. R. Hogg.*

THE PRINCIPAL LANDING UNDER THE DOME.





*Photo: A. R. Hogg.*

THE RECEPTION ROOM.





Photo: A. R. Hogg.





*Photo: A. R. Hogg.*





*Photo : A. R. Hogg.*

THE GREAT HALL.





*Photo: A. R. Hogg.*





A. Drummond, Thames & Co. Ltd.

Photo: A. R. Hogg.

LORD MAYOR'S RECEPTION ROOM



THE ARCHITECTURAL  
REVIEW, NOVEMBER,  
1906, VOLUME XX.  
NO. 120



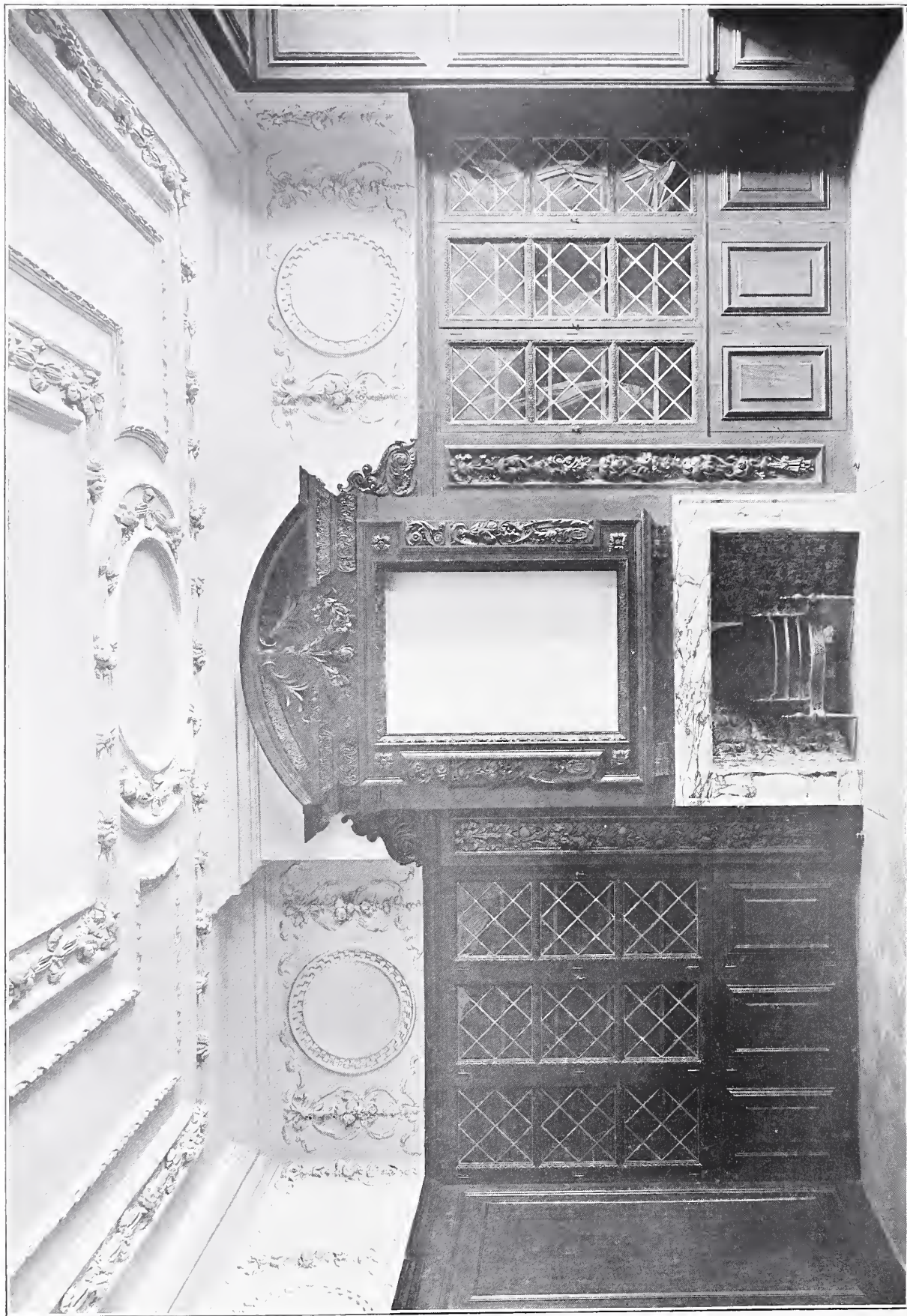


Photo : Bedford Lemere.

11, HILL STREET, LONDON, W. THE LIBRARY.  
J. LEONARD WILLIAMS, ARCHITECT.



# Current Architecture.

THE general scheme of the decorative work carried out by Mr. J. Leonard Williams at No. 11, Hill Street, Berkeley Square, for the late Mr. Charles Ansell, of 64, Sloane Street, will be apparent from the photographs which we print in this number. These few notes are added to explain certain points which might not, perhaps, be fully grasped from the illustrations.

The first room to be considered is the library. The room is in English oak, which was fumigated *in situ* and waxed. The fire-place was so arranged to take a picture of Mrs. Ansell by Mr. Shannon. The moulding round the fire-opening is of Pavonazzo, and the hearth is a single slab of Verde Antico, with which the old Spanish tiles make an effective combination. The inside faces of the mullions are a simple inlay of ebony and box, and the flat-section welded casements were made upon the anvil by Messrs. Hobbs and Son, of Robert Mews, Hampstead Road. The detail of the doorway is given. The carving, which is very finely executed, is in the style of Gibbons, and is made up of fruit and flowers, the drops in the pilasters being made of sycamore. The woodwork, plaster-work, and carving in this room and in the dining-room and boudoir were executed by Messrs. H. H. Martyn & Co., of Cheltenham.

The general view of the dining-room shows that Mr. Williams has here had to contend against insufficient height. The room is treated in carved pine, and is a free version of Georgian work (the ceiling being quite Georgian) with a strong Italian influence. The general arrangement of the paneling has been dictated by the pictures, which, embodying old architectural subjects with figures, gives a rich tone to the room. In materials the fire-place is similar to that in the library, only that in the hearth slabs of Cipollino have been combined with the Pavonazzo and Spanish tiles. The drops of the carving portray fish and birds, and are in white and gilt. In the detail of one of the doors—which are of oak faced with ebony and with a band of gilt carving between

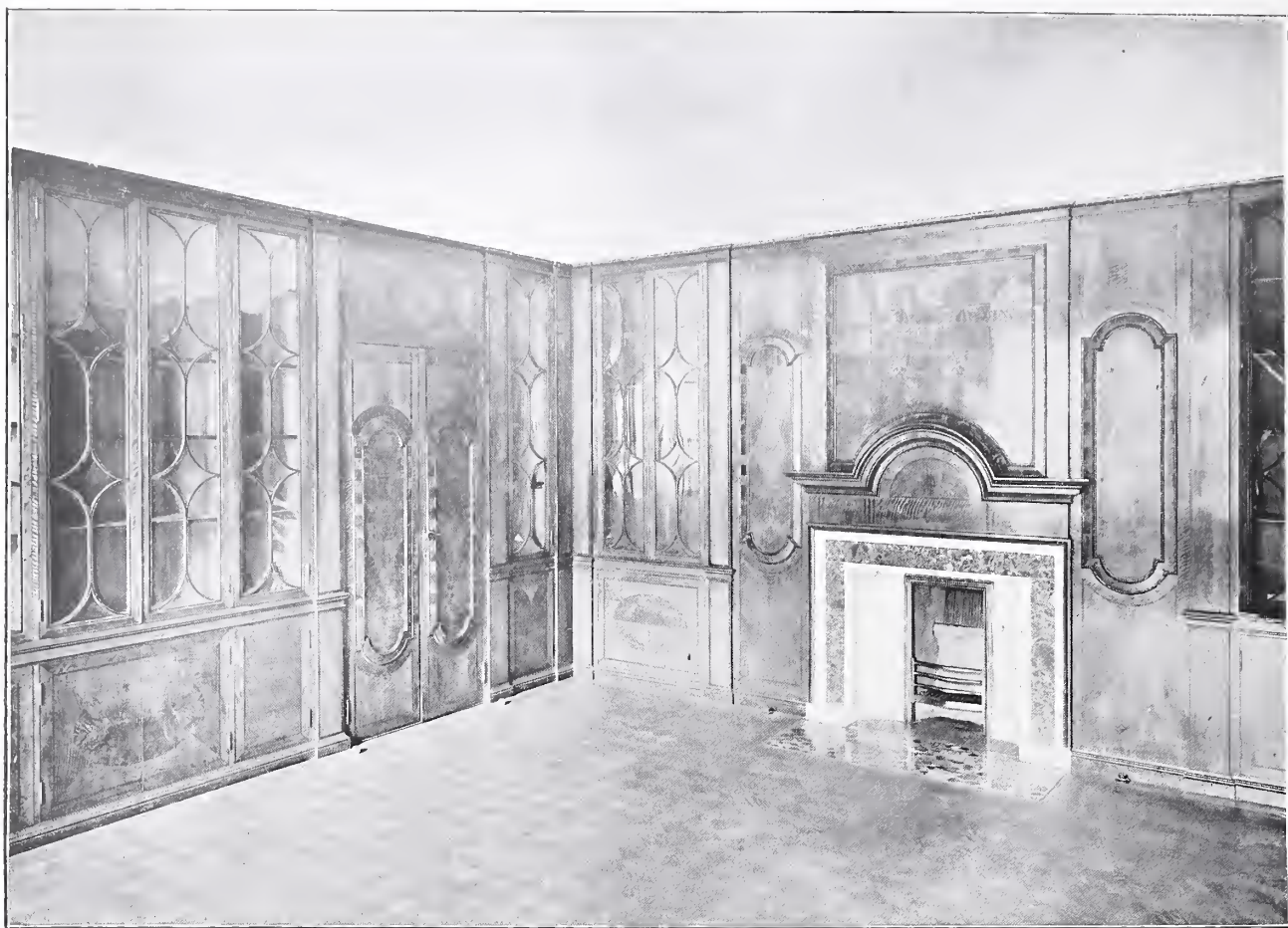
the ebony mouldings—the noteworthy feature is the insertion of carved bed-mould round the doors, which gives scale to the general treatment while keeping the doors themselves reasonably small. To obtain illustration of what may be called the loggia it was necessary to take the photograph from the back part of the hall through a glazed wrought-iron grille. This loggia has superseded the old conservatory with a half-barrel roof, which was reached by three small openings that served also to light the dining-room. These insufficient apertures have now been greatly enlarged by the wall above being carried by iron girders over the Cipollino columns supplied by Messrs. Farmer and Brindley. The ornamental ceiling was decorated by Florentines, and the floor (which is by Messrs. Whitehead & Co.) is composed of



11, HILL STREET, LONDON, W.  
DOORWAY TO LIBRARY.

Photo: Bedford Lemere.





11, HILL STREET, LONDON, W. THE SATIN-WOOD DRESSING-ROOM.  
J. LEONARD WILLIAMS, ARCHITECT.

Cipollino with Siena and black squares round outer bands of white.

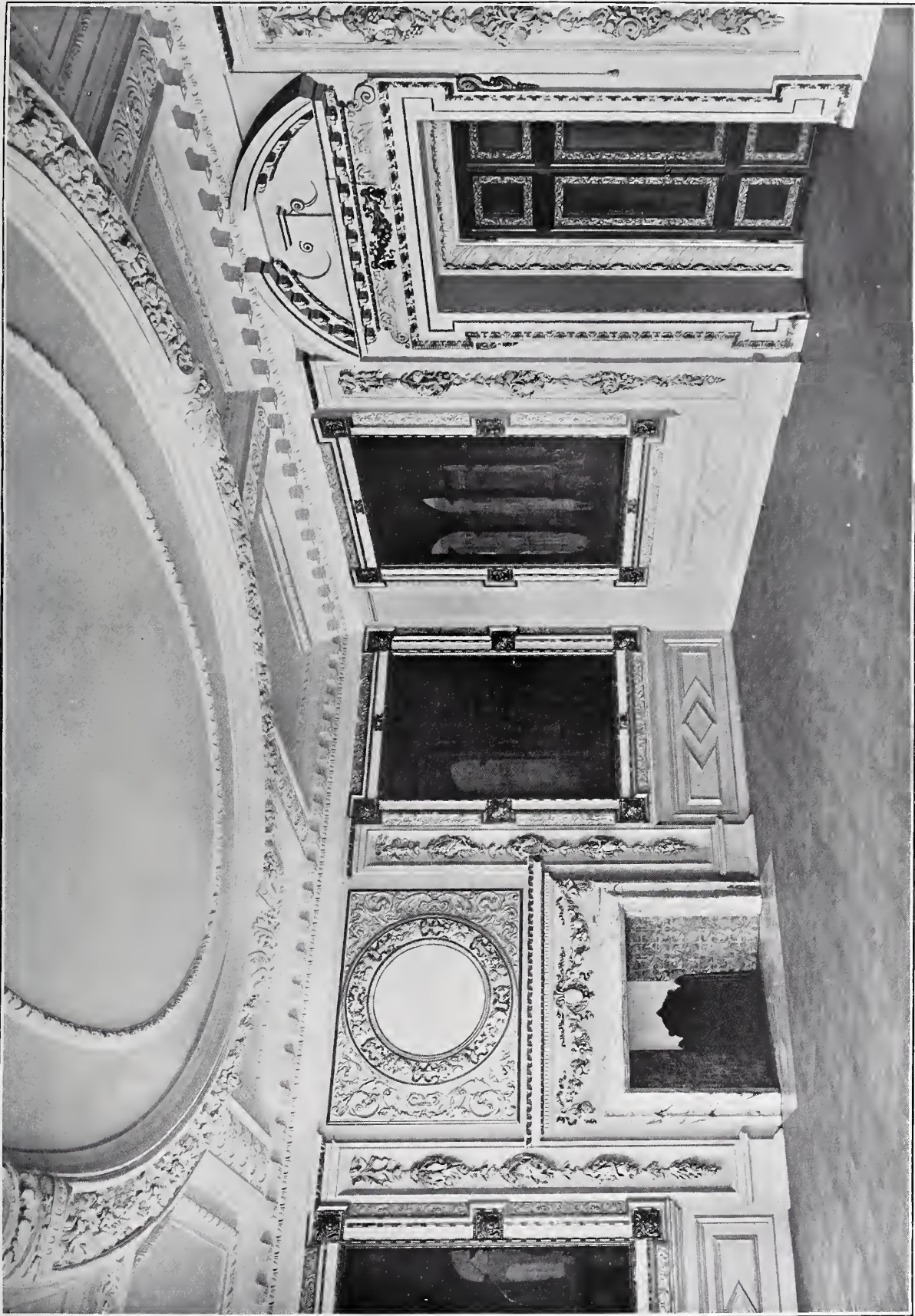
The boudoir or Italian room is veneered in Italian walnut, the dado, pilasters, and cornice all being executed in this material, while the mouldings in caps are gilded. The carvings on each pilaster are varied, no two being alike, and the groundwork behind is painted green, as is also the frieze. The statuary marble chimney has columns and hearth of Verde Antico, and the frieze and panels of Brescia with a margin of Verde Antico, by Messrs. Farmer and Brindley. For the ceiling, which has been painted by Florentines in the Pompeian manner, use has been made of pictures previously existing. A detail of the door is given, and does not call for any further explanation. Italian walnut has also been employed in the bedroom. In the fire-place the feature to be noted is the beautiful figuring of the panels, which have been chosen with the most delicate care. Dutch tiles have been employed, and the hearth is of black and white marble. Another striking feature of this room is the stained glass in the bay-window, enamelled on unflattened crown (which Mr. Williams has used all through), by Mr. James Fisher. The door also illustrates the disposition of the veneer and the

exquisite patterning. This room, it may be noted, was executed by Messrs. Gill and Reigate.

For the bath-room Messrs. Whitehead & Co. are responsible. The bath is of Norwegian pink marble and Cipollino. The doors are of Italian walnut, and above the dado, including the caps, plaster has been utilised. In the satin-wood dressing-room, which has also been executed by Messrs. Gill and Reigate, Mr. Williams seems to have borrowed his ideas from rooms intended to show off china. In treatment the room is seventeenth century. The satin-wood has bands of purple wood and green lines, and has been toned down considerably to the colour of old work. The glazing is again of unflattened crown. Wherever electric lights are shown, it must be noted, they are merely of a temporary character, for the design of which Mr. Williams is not in any way responsible.

The last two photographs illustrate respectively the stables and the motor-garage. The stables are of Portland stone and thin red bricks with wide joints. The doors are of English oak, in the qualities of which, as is evident, Mr. Williams is a firm believer. The garage is carried out in oak and plaster upon brick with roof of sand-faced hand-made tiles.

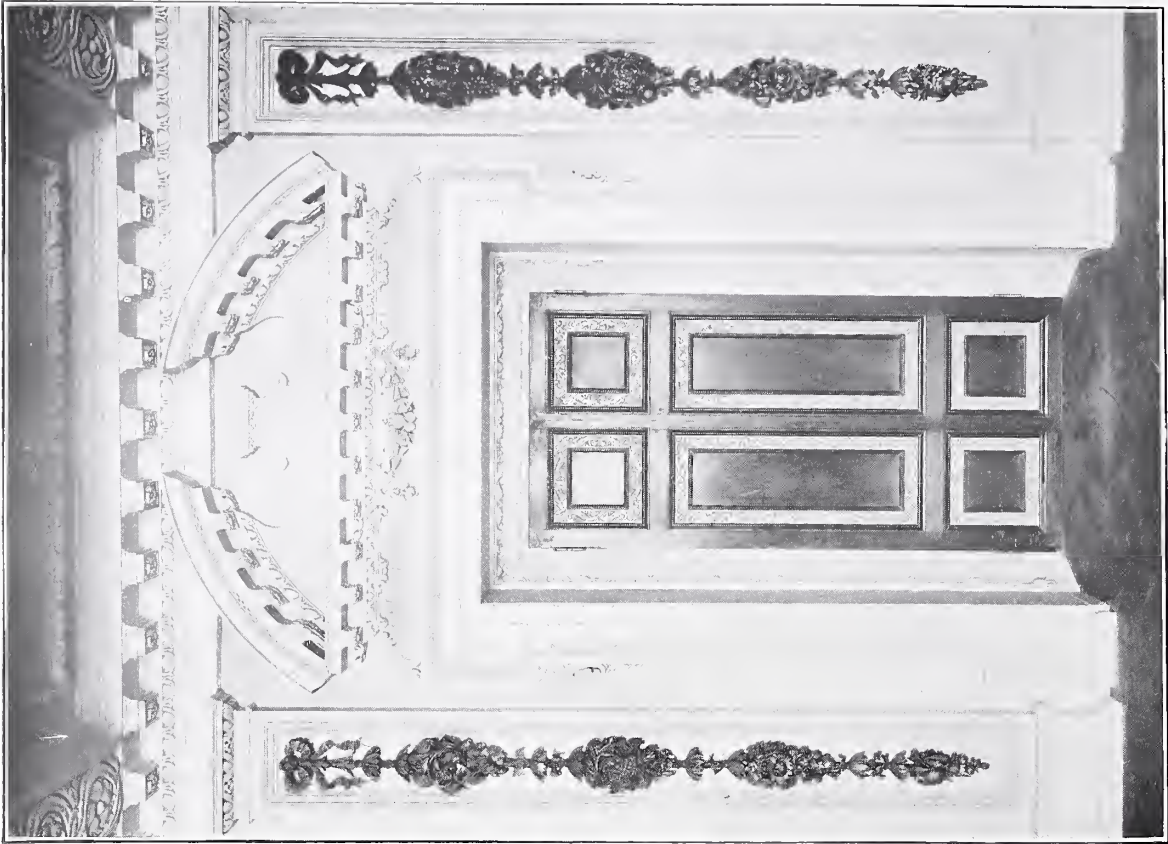




*Photo: Bedford Lemere.*

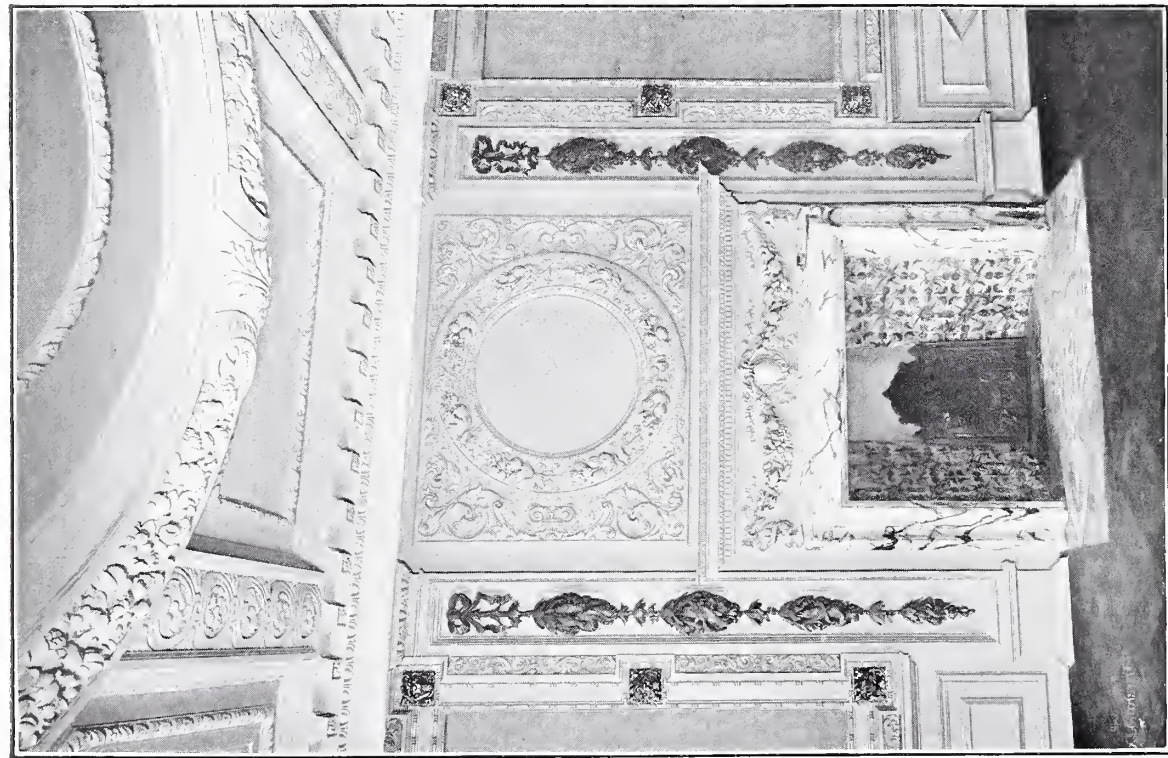
11, HILL STREET, LONDON, W. THE DINING-ROOM.  
J. LEONARD WILLIAMS, ARCHITECT.





Photos: Bedford Lemere.

DOORWAY TO DINING-ROOM.



CHIMNEYPIECE IN DINING-ROOM.

11, HILL STREET, LONDON, W. J. LEONARD WILLIAMS, ARCHITECT.

NOTE.—These views were taken before the swags were whitened or the gilding had been done.



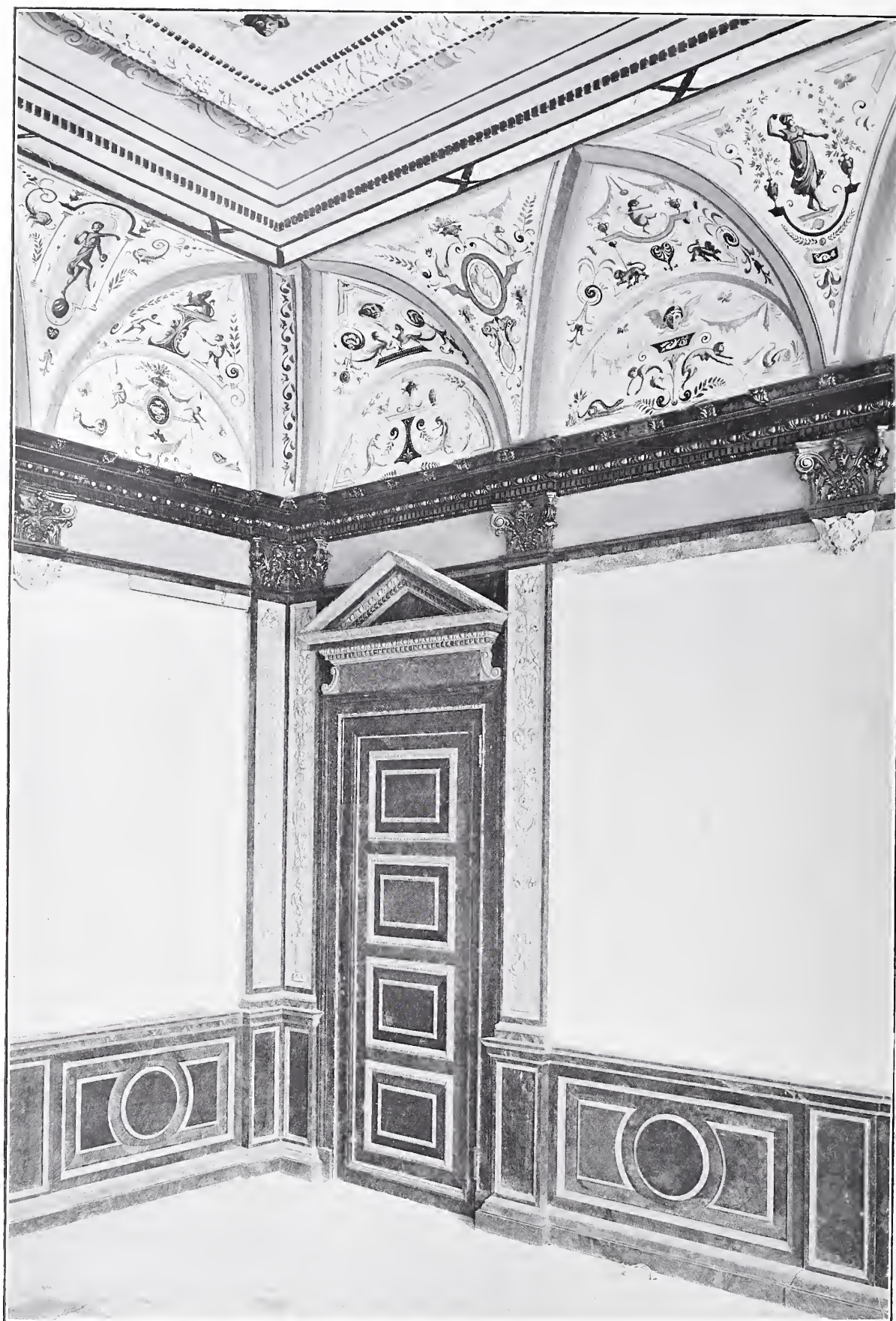


*Photo: Bedford Lemere.*

11, HILL STREET, LONDON, W. THE LOGGIA.

J. LEONARD WILLIAMS, ARCHITECT.



*Photo: Bedford Lemere.*

11, HILL STREET, LONDON, W. DETAIL IN BOUDOIR.

J. LEONARD WILLIAMS, ARCHITECT.

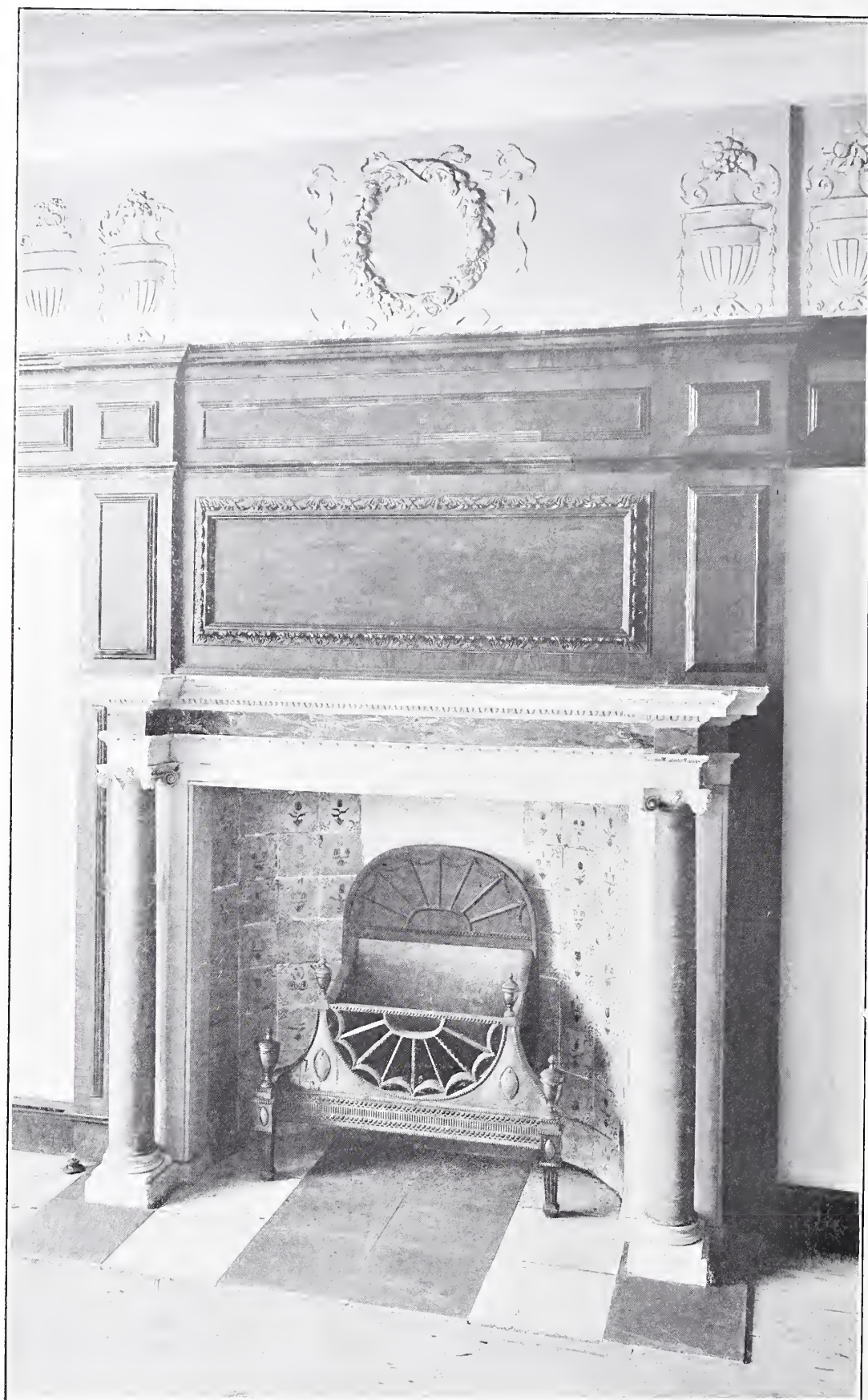




Photo: Balford Lemere.

11, HULL STREET, LONDON, W. THE BOUDOIR.  
J. LEONARD WILLIAMS, ARCHITECT.



*Photo: Bedford Lemere.*

11, HILL STREET, LONDON, W. FIREPLACE IN WALNUT BEDROOM.  
J. LEONARD WILLIAMS, ARCHITECT.





*Photo: Bedford Lemere.*

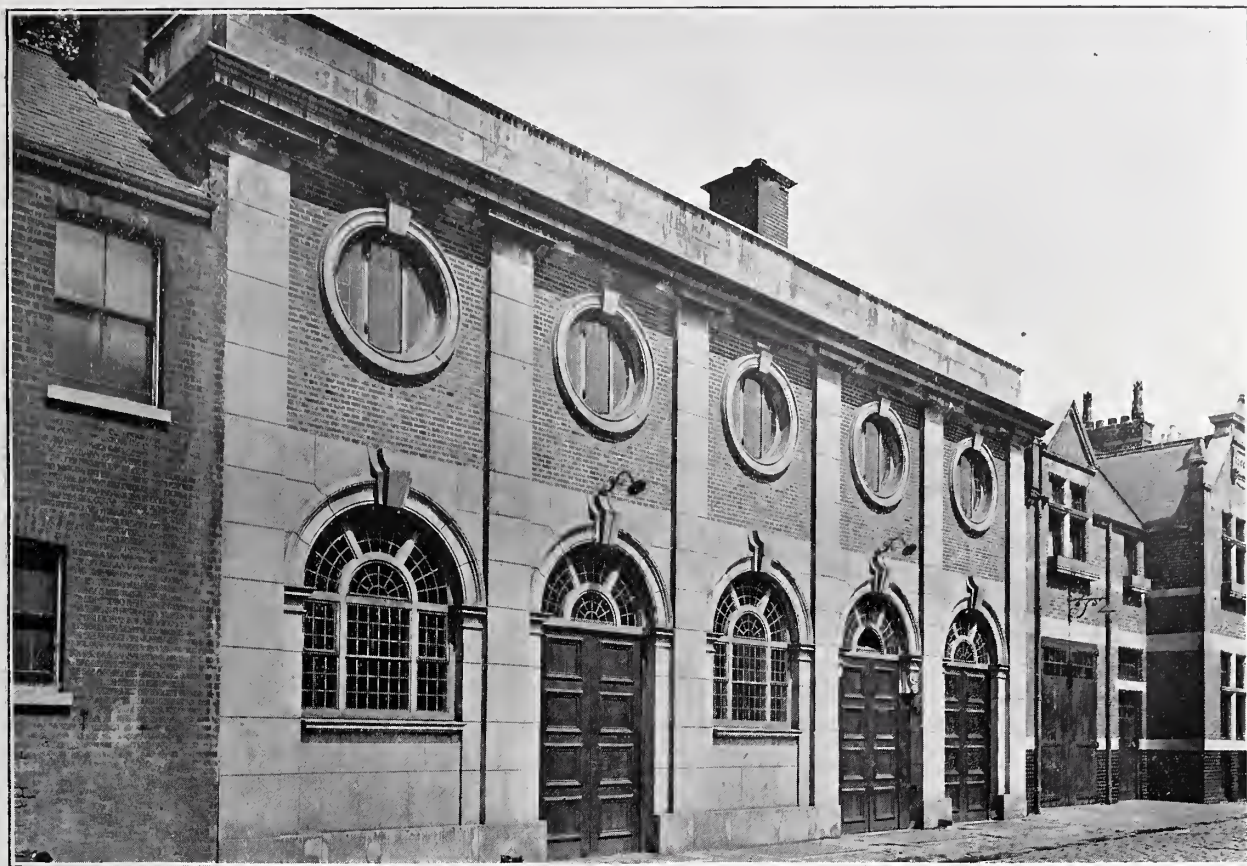
11, HILL STREET, LONDON, W. DOORWAY IN WALNUT BEDROOM.  
J. LEONARD WILLIAMS, ARCHITECT.



*Photo: Bedford Lemere.*

11, HILL STREET, LONDON, W. THE BATH-ROOM.  
J. LEONARD WILLIAMS, ARCHITECT.





The Stables.



The Garage.

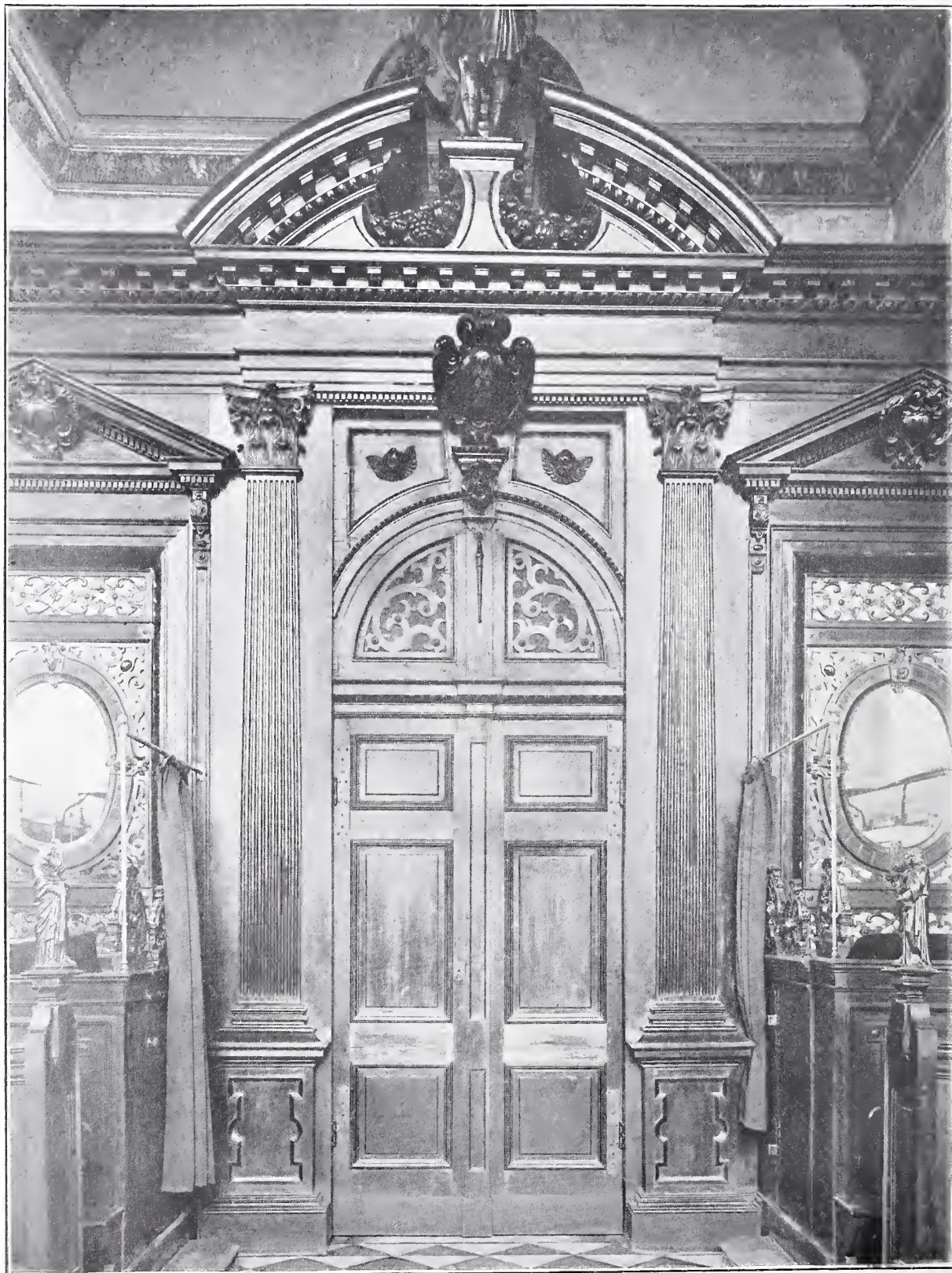
*Photos: Bedford Lemere.*

11, HILL STREET, LONDON, W.  
J. LEONARD WILLIAMS, ARCHITECT.



# The Practical Exemplar of Architecture.

VII.



*Photo: Arch. Rev.*

DETAIL OF CHAPEL SCREEN, LINCOLN COLLEGE, OXFORD.

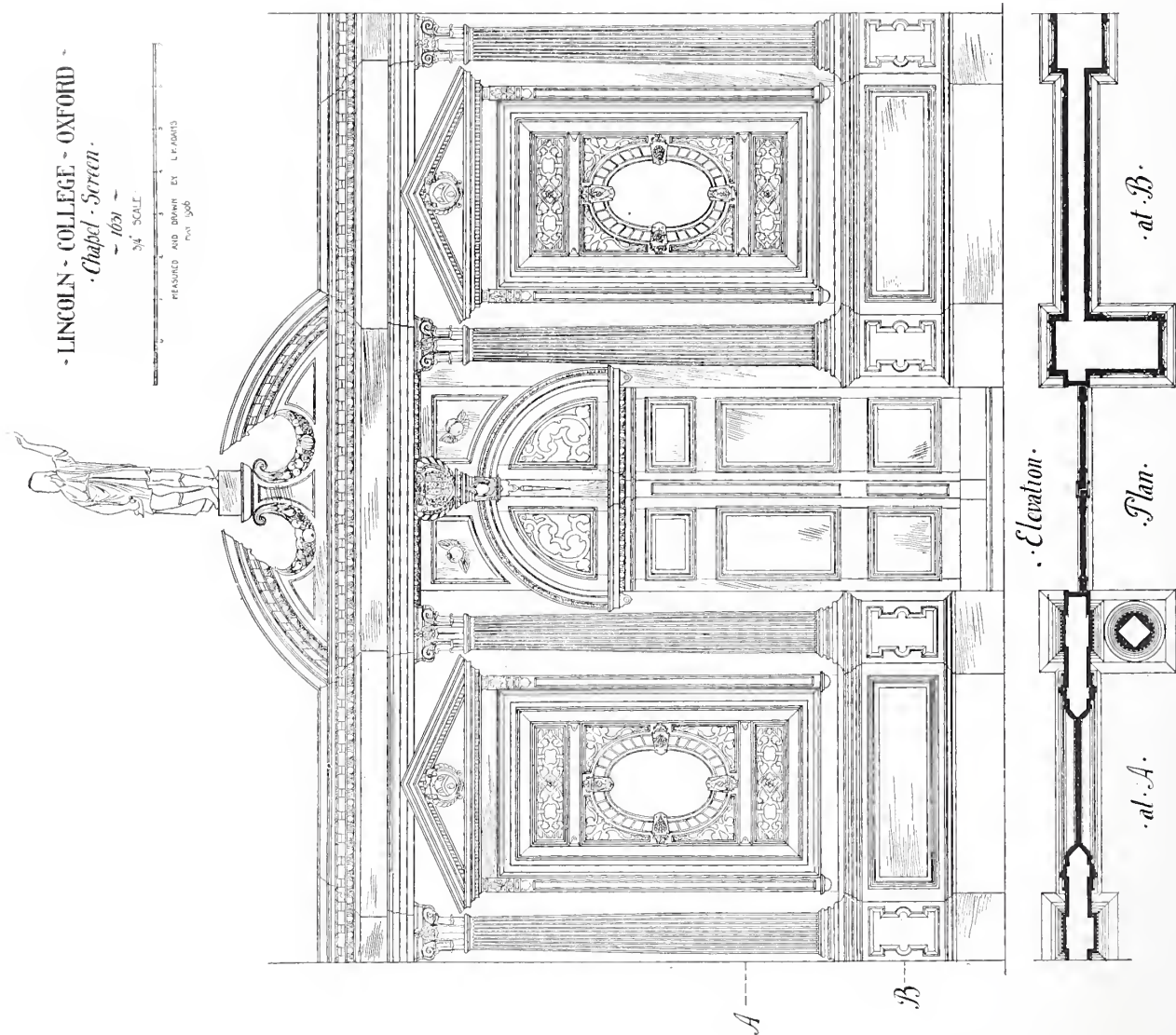
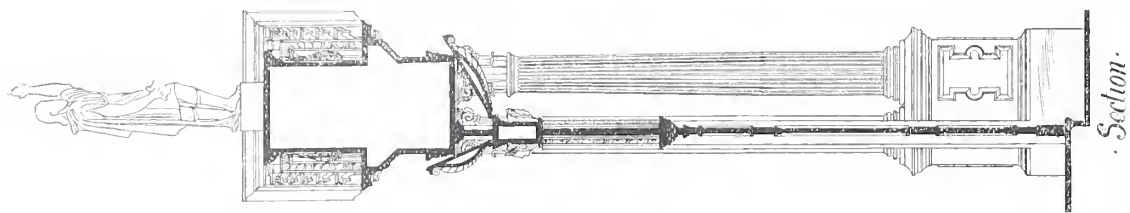




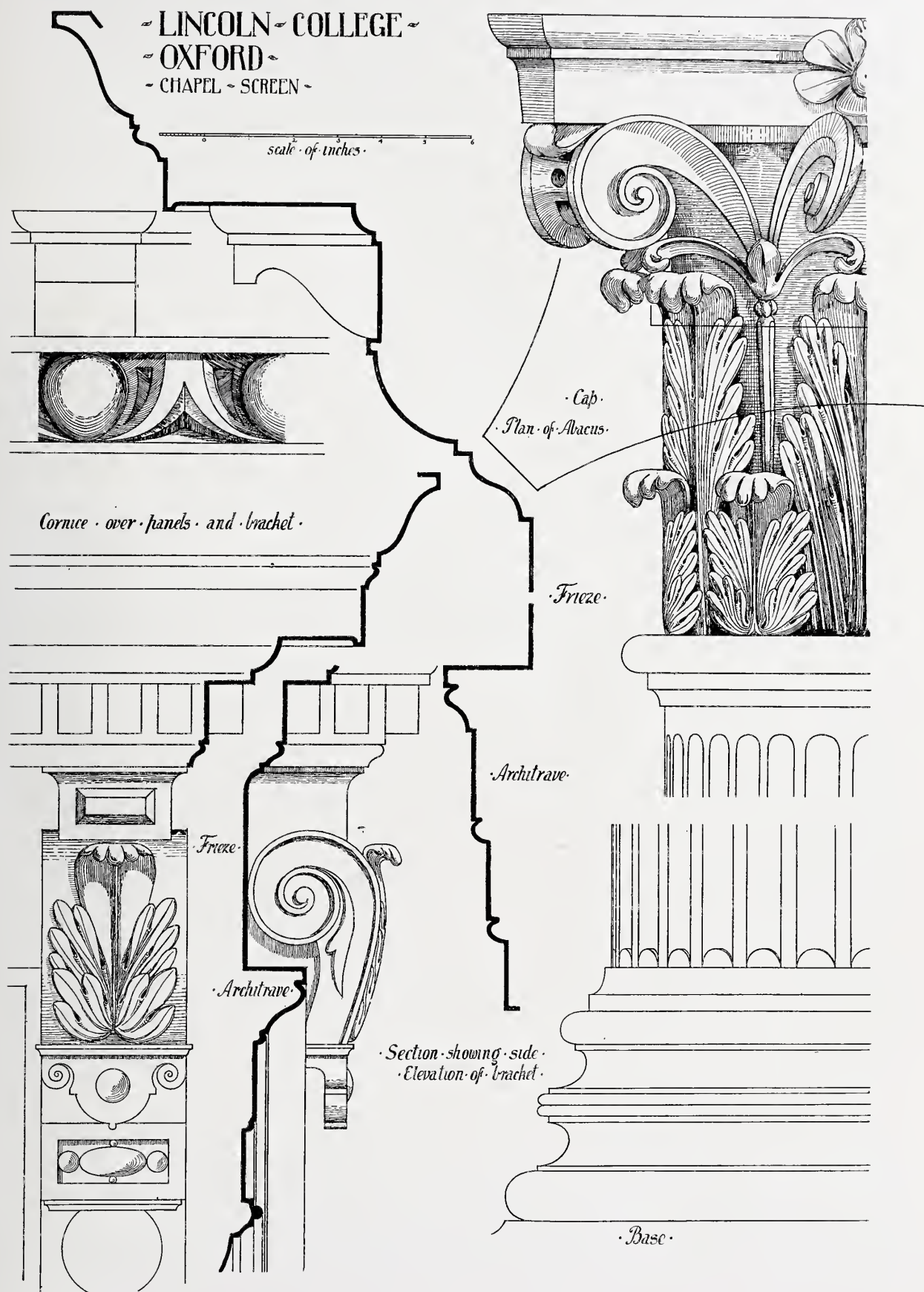
*Photo : Arch. Rev.*

CHAPEL SCREEN, LINCOLN COLLEGE, OXFORD.

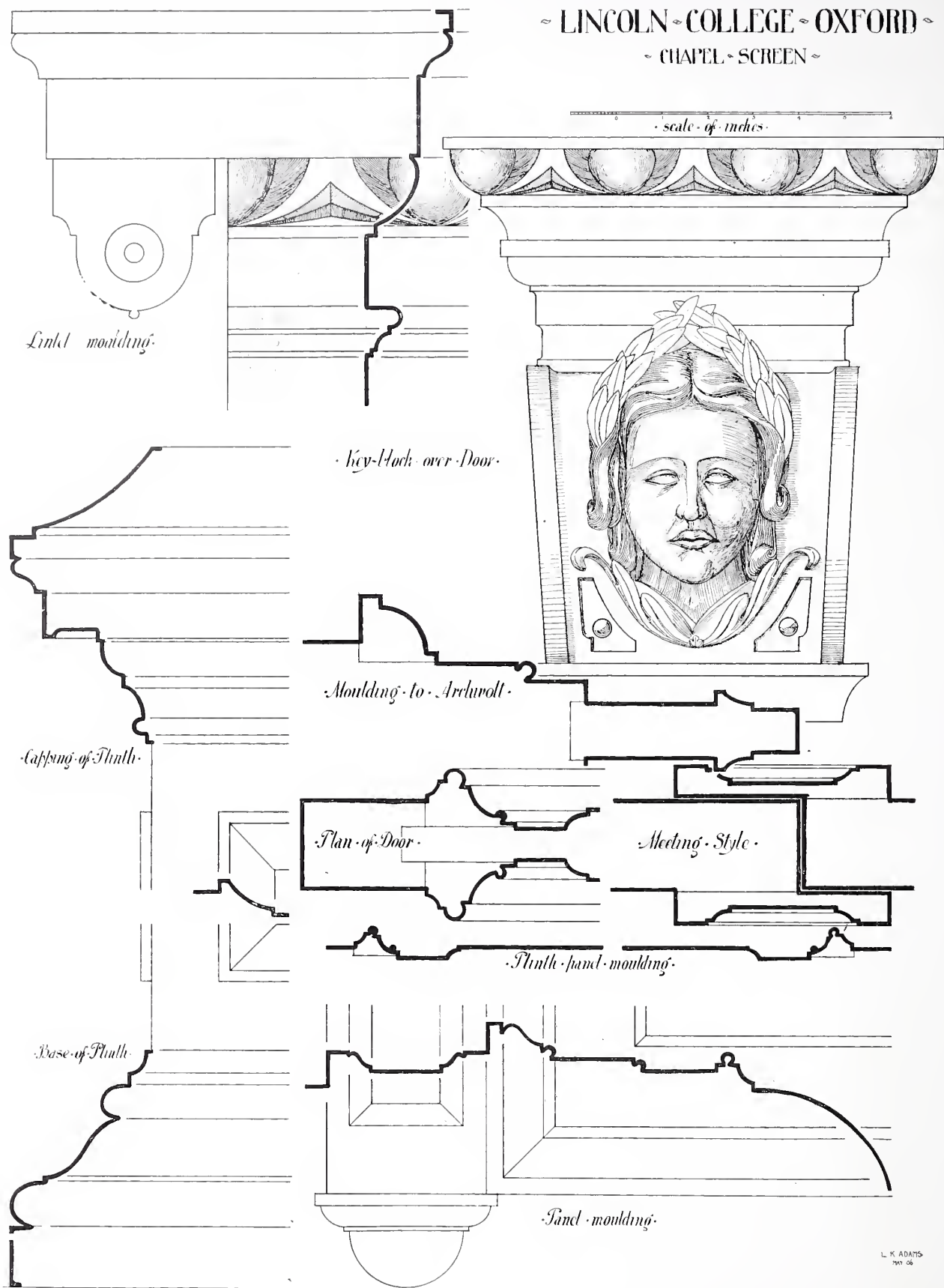
















*Photo: Arch. Rev.*

DETAIL SCREEN IN THE CHAPEL, LINCOLN COLLEGE, OXFORD.



# The Alphabet Competition.

THE proprietors of THE ARCHITECTURAL REVIEW are gratified by the success which has attended this competition, forty-seven designs having been received. The Assessor has awarded the prizes as follows :—

FIRST PRIZE, £20, to the design marked "Lituus."

William Edward Careless, 2, Upper Woburn Place, Tavistock Square, W.C.

SECOND PRIZE, £10, to the design marked "Michael."

Dorothy M. Dyer, 1, Sydney Place, Onslow Square, S.W.

THIRD PRIZE, £5, to the design marked "Wild Briony."

J. A. Woore, A.R.I.B.A., Fritchley, Ambergate, Derbyshire.

Cheques have been sent to the successful competitors.

The full list of the designs received is as follows :  
Abednego Jones, Acanthus, Alexis, Alpha (1), Alpha (2), Alphomega, Arrow, Birdie, Boz (two designs), Bricks, Capstone, Classic, Crockett, Crusader, Cygnet, Derf, Einna, En Esperanza, Gargoyle, Grafton, Jacko (three designs), Jacobus, Kingfisher, Light, Lituus, Memory, Michael, Nimrod, Ornament, Pictorial, Pulido, Q.E.D., Red Ink, Scarab, Sol, Stan, Suggestion, T<sup>2</sup>, Tau, Verdura, Visigoth, Wadham, Whim, Wild Briony.

By the courtesy of the Council the designs will be on view at the premises of the Architectural Association, 18, Tufton Street, Westminster, S.W., from Saturday, November 17th, to Saturday, November 24th, inclusive. Admission on Saturdays from 10 a.m. to 4 p.m., on other week-days from 10 a.m. to 6 p.m.

Following will be found the Assessor's report and illustrations of the first three designs reduced to their proper proportions. If space permits, some of the other designs will be illustrated in the December issue.

## THE ASSESSOR'S REPORT.

Generally speaking the forty-seven designs submitted show a high level of painstaking effort without any very great inspiration or particular gift for lettering. Two or three of the drawings are distinctly good; others are deplorably bad, savouring of the worse flights of the decorative sign writer. Between these two extremes are a number of such equal attainment that it would be hard to place them in any order of merit.

The majority of the competitors appear to have ignored or forgotten the definite object of the competition—the production of an initial alphabet

for THE ARCHITECTURAL REVIEW—consequently the majority of the designs are not in sympathy with the style of type and class of paper employed for the magazine. This defect ruled out quite a number of designs such as those marked "Stan," "Birdie," "Bricks," "Boz," and others.

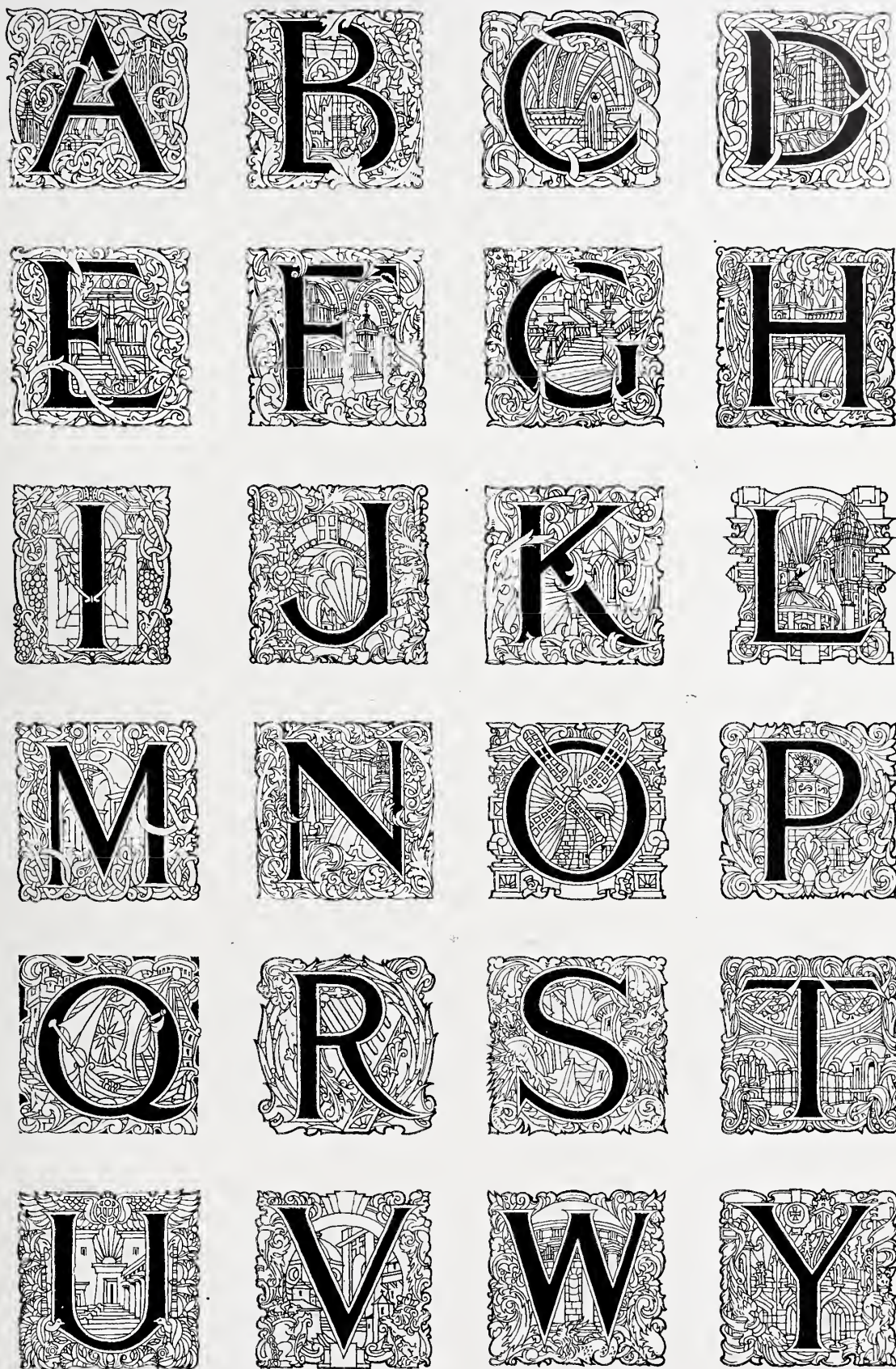
It is evident also that in the minds of most competitors the letter itself was regarded as of subsidiary importance to the ornament surrounding it, as for instance the designs marked "Scarab," "Crusader," and "Gargoyle."

In the first-named the letters, poor and heavy in outline, are for the most part obscured by the nude child-forms, excellently drawn, which form the decorative treatment, and these children, with doubtful ingenuity, are twisted into a semblance of the letters they ornament, resulting in some awkward postures; the whole being further complicated by drawing the child-letters, in several instances, the reverse way to the letter itself.

The design marked "Crusader" is unintelligible in places, and that marked "Gargoyle" is also crude in design. Several drawings sent in were of plain lettering without attempt at ornament. Of these the best were those marked "Cygnet," "Red Ink" (both evidently by the same hand), "Alphomega," and "Abednego Jones." The last was very weak in draughtsmanship. Of the two first named, the "Cygnet" design is the better type of letter, and with that marked "Alphomega" is included among the first six. The reproductions of both these designs show, however, that these letters, drawn to the full dimensions of the square prescribed in the conditions, are too large for the page when reproduced. The "Alphomega" design would have ranked higher but for the "M" which was quite hopeless. "Q.E.D." sent in a design of white letters on a black ground, altogether too heavy in effect.

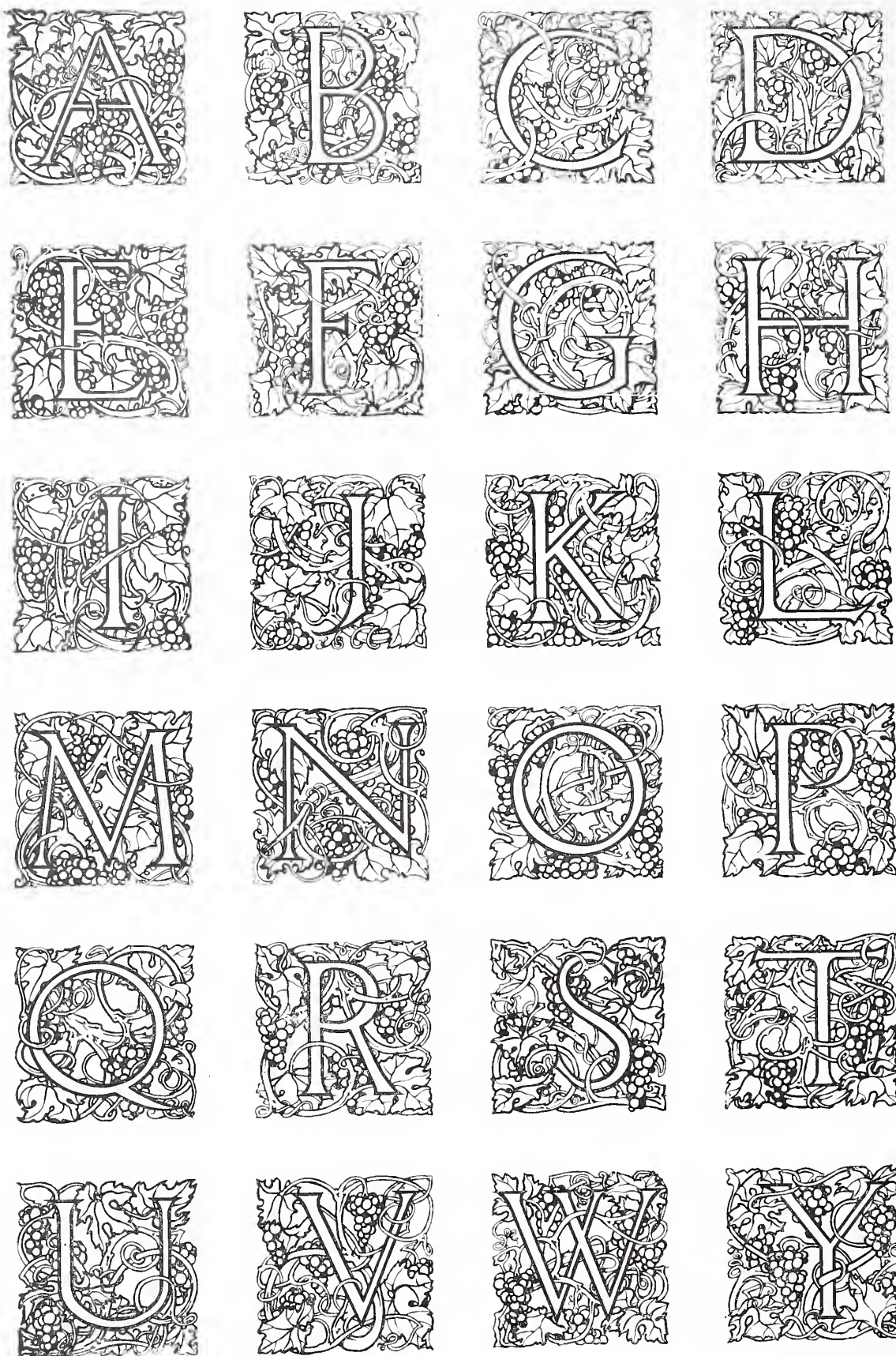
"Jacko," "Pictorial," "Kingfisher," and others essayed designs in which concrete architectural forms were introduced as ornament, but this treatment gave very poor results, despite good draughtsmanship. Following his first attempt "Jacko" developed two other designs based on motives in the original drawing, one of which is a play on the Royal Institute Coat of Arms. "T<sup>2</sup>" combined birds and beasts with architectural detail; the result is not very happy. "Sol" and "Suggestion" have tried the "Every-picture-tells-a-story" method—"A" for arch, "B" for buttress, etc. The first-named design, though carefully drawn, is dull and rather too fine in line for successful reproduction. "Whim" has endeavoured to achieve novelty by depicting a different style of





THE ALPHABET COMPETITION. FIRST PRIZE, "LITUS,"  
WILLIAM EDWARD CARELESS.





THE ALPHABET COMPETITION. SECOND PRIZE, "MICHAEL,"

DOROTHY M. DYER.





THE ALPHABET COMPETITION. THIRD PRIZE, "WILD BRIONY,"

J. A. WOORE.



building to each letter; "A" for American (depicted by a skyscraper); "B" for Byzantine; "Q" for Queen Anne and so on; but this ingenuity has its limits, and it would be difficult to say what distinctive styles were depicted by the letters "U" and "Y." The last letter also puzzled "Suggestion," who took refuge in a yew tree.

A common and, perhaps, inevitable fault in these pictorial designs is the inequality of the tone-values. Some of the initials are exceedingly black and heavy, and others are correspondingly light and weak. In conceivable circumstances two or three initials might be required on one page or at one opening, and this inequality would then become painfully obtrusive.

Of the conventionalised fruit and foliage treatment there were several examples; the design marked "Alpha (2)," unfinished, would have held higher place but for a heaviness in treatment which would give poor results in reproduction.

An examination for the various defects which have been already outlined brings me to a reconsideration of those designs which passed the tests most satisfactorily, and from these I have no hesitation in selecting for the first prize the design

marked "Lituus." This alphabet shows a clear and carefully designed letter, albeit lacking somewhat in character and interest. The initials however have equal tone-value, and the ornament, properly subordinated to the letters, is distinguished by careful design and draughtsmanship, and shows much of that gift for combining architectural forms and conventionalised foliage which some of the old masters exhibited to such advantage in the tail-pieces and book ornaments of their works on architecture.

The second and third prizes are more difficult to place. The design marked "Wild Briony" shows character and distinction, but the letters "E" and "S" are very poor, and there are certain inconsistencies in the size and extent of the ornament that detract from an otherwise good drawing. On these grounds I relegate this design to third place, and award the second prize to the design marked "Michael," which, though the letters are feeble and might be improved by blacking-in, is the best of the conventionalised foliage designs, and the grape ornament is well thought out and worked in. Honourable mention should be made of the designs of "Cygnet," "Alphomega," and "Grafton."

MERVYN E. MACARTNEY, B.A., F.R.I.B.A.

## Selby Abbey.

IN the early hours of Saturday, October 20, there broke out a fire which has almost ruined one of the most celebrated churches in England, Selby Abbey. It is nearly eighty years since York Minster suffered damage in this way, and shortly afterwards Doncaster Church was destroyed by the same cause. All of these churches have suffered the more severely on account of the calcining of the beautiful white magnesian limestone of which they are built. The fire at Selby first broke out in the Lathom Chapel, on the north side of the choir, where a new organ was being fitted by Messrs. Compton, of Nottingham. It was provided with kinetic blowers, for which the motive power was obtained from a gas-engine, and it is asserted that some difficulty was recently experienced with the fans, which became overheated from friction. This chapel was of admirable design, and dates from the middle of the fourteenth century, when John Lathom founded a chantry. Within an hour after midnight the flames burst through the chapel roof and crept along the choir towards the wonderful east windows, renowned above all others, save, perhaps, that of Carlisle. The rich oak groining of the choir roof and the elaborate woodwork of the stalls only served to feed the flames, which, however, by some marvel failed to harm the great Jesse window, although the lovely little reticulated light above did not escape, from its proximity to the timber of the roof. The newly-

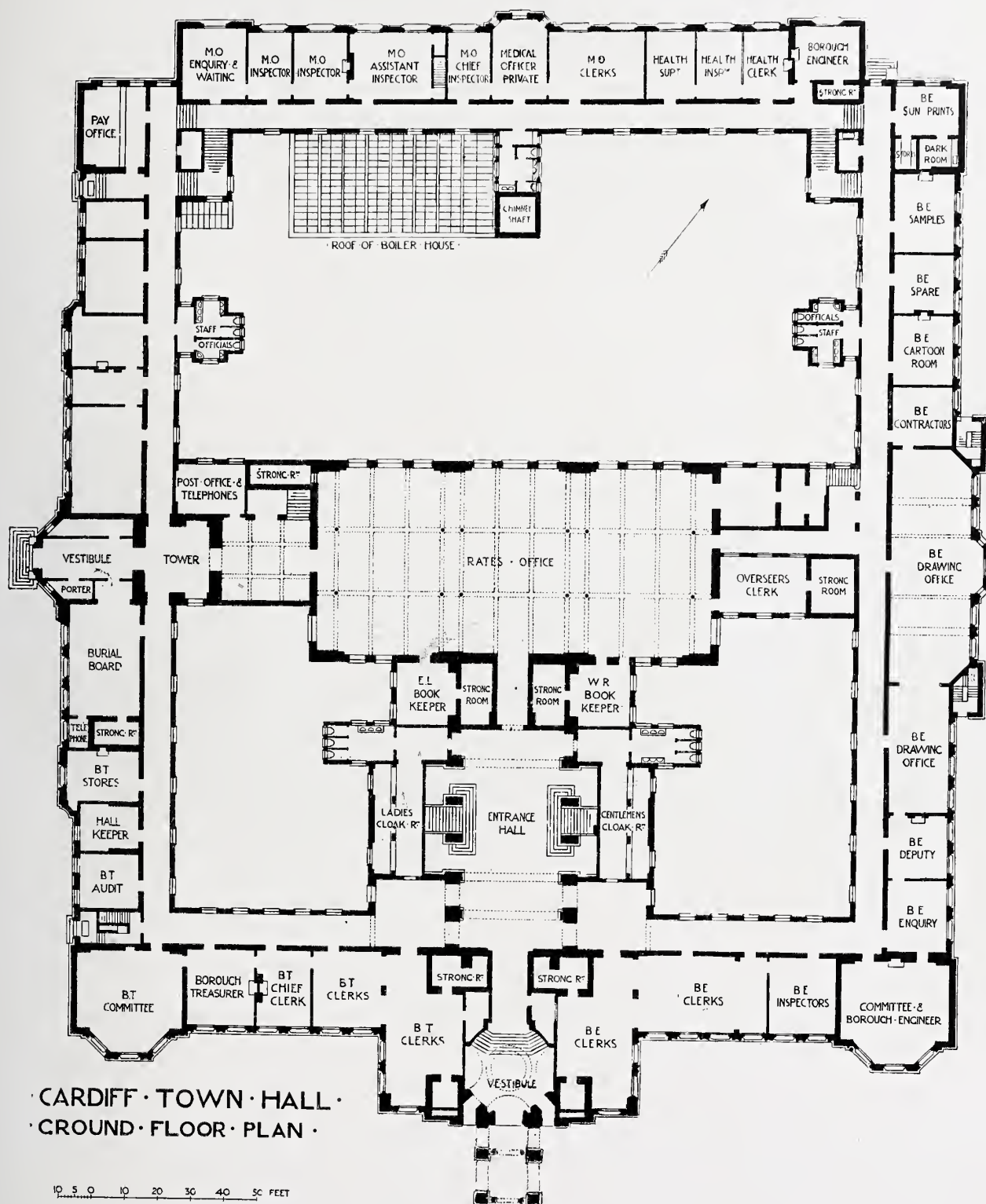
restored reredos and the greater part of the choir furniture were destroyed; but the altar-screen—a perfect gem of Decorated diaper and carving—being of stone, is not entirely lost.

Molten lead and heavy beams were falling by the time that three large engines from York and Leeds arrived to assist the small local brigade. Shortly after two the roof and steel girders of the belfry fell with a crash into the crossing, carrying with them the fine bells. The transept roof had now fallen, and most of the glass in the windows had perished. Spreading rapidly, the flames gained fresh impetus during a temporary cessation of the water supply—up to this point reliable enough—and the fine panelled roof of the nave was soon burning furiously, the pews beneath succumbing shortly afterwards. It is, however, a matter for thankfulness that the masonry of the church, generally speaking, has survived the ordeal well, although much blackened and spalled.

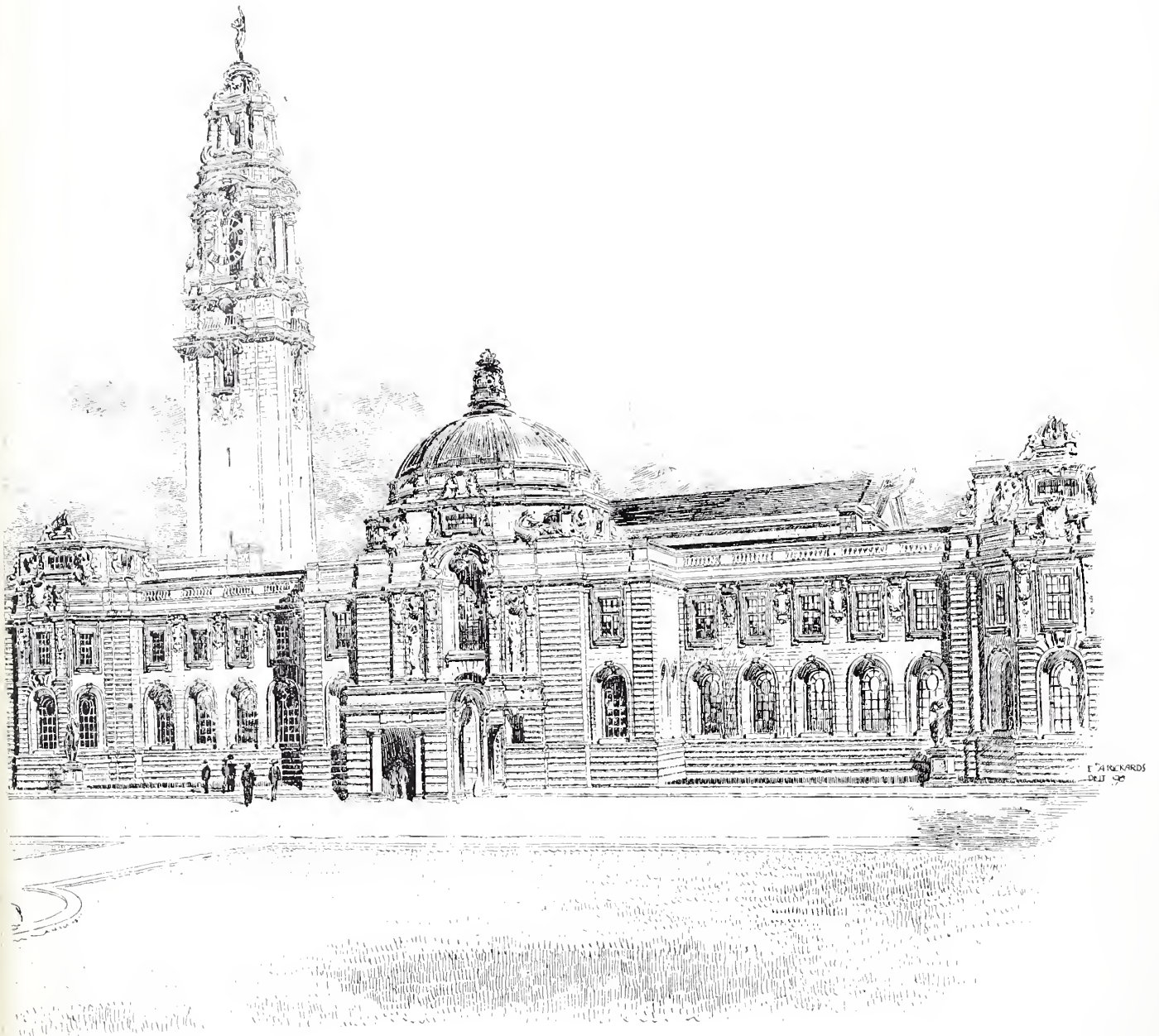
Yorkshiremen are proud of their county and their great abbeys, and already, with characteristic enterprise, are discussing the possibilities of restoration. The damage has been roughly estimated at £50,000, and Mr. Oldrid Scott, architect to the church, has already paid a visit to the ruins. It should not be impossible to reinstate this beautiful building to at least something like its former glory.

M. S. BRIGGS.









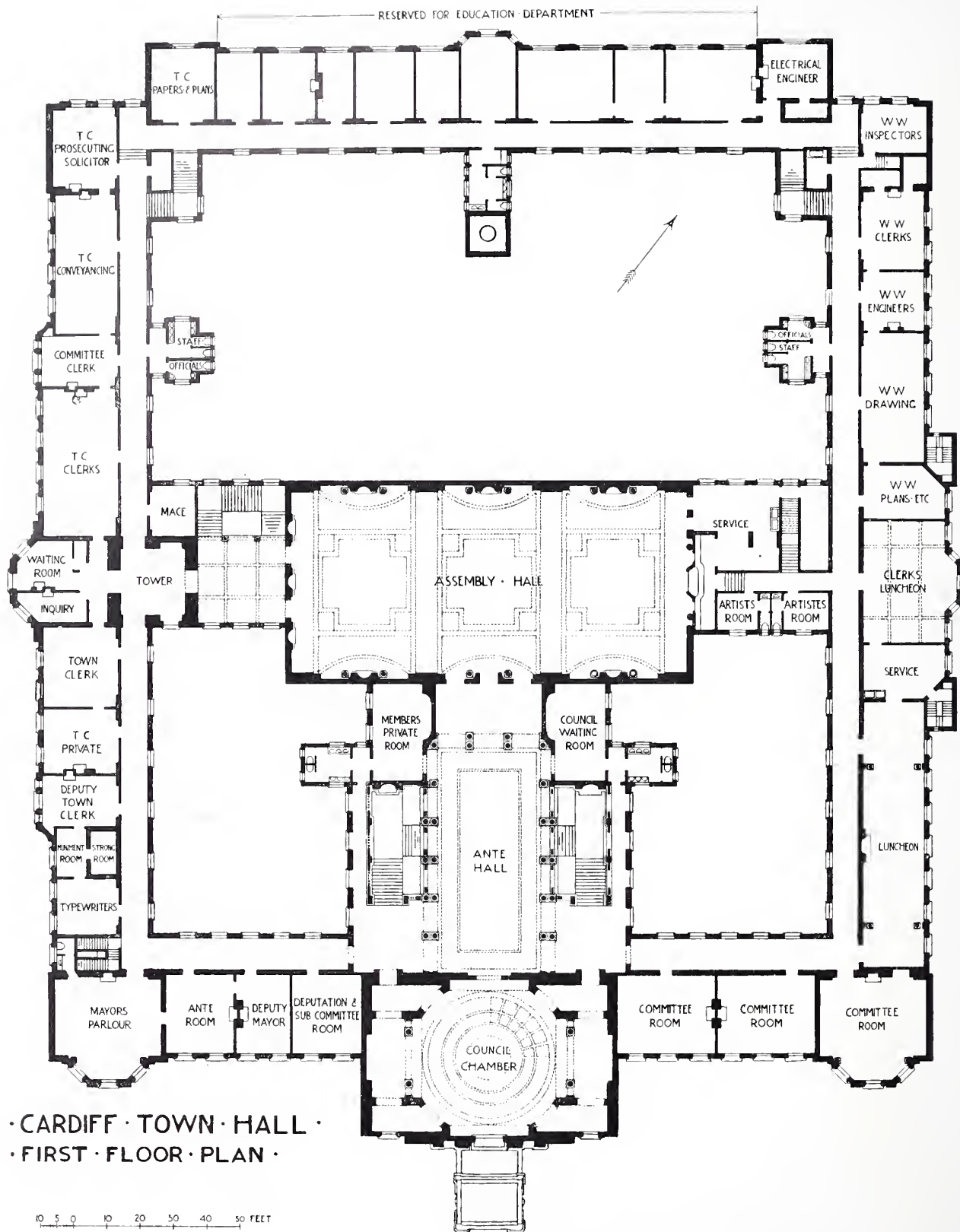


*New*  
TOWN HALL  
*and*  
LAW COURTS  
*for the*  
County Borough  
*of*  
CARDIFF  
*Architects*  
*Lamchester*  
*Seabrook and*  
*Reckards*



PRELIMINARY PERSPECTIVE DRAWING OF THE SCHEME.





• CARDIFF • TOWN • HALL •  
• FIRST • FLOOR • PLAN •



# Cardiff City Hall and Law Courts.

Lanchester and Rickards, Architects.

It is difficult in a retrospect carrying us back over a period of eight years to reconstruct the enthusiasm and ideas with which one approached a subject with such possibilities as the erection of these buildings afforded.

The site itself gave an opportunity seldom offered in this country, the complete isolation from any other buildings, and the almost ideal setting furnished by the park surroundings naturally suggesting a monument, in the abstract, of the symmetry and proportions commensurate with other public buildings of the Continent and America, where expense has apparently been no obstacle and space has been unlimited.

In the present instance the space was adequate, but the reduction to simple terms and anything like monumental simplicity and coherence of the very many requirements and features to be embodied presented a problem to which a really satisfactory artistic solution was hardly possible, especially as in this case, as usually, the amount to be expended was definitely stated.

In brief the requirements set forth in the competition instituted for this work were as follows:—The position of the buildings was defined by a frontage line on the south, and by the instruction that the City Hall was to be placed on the east side of the Central Avenue, and the Law Courts on the west, between this avenue and the North Road, one of the main thoroughfares leading out of the town.

The chief requirements for the City Hall consisted of a large assembly hall, ante hall, and council chamber *en suite*, with Mayor's parlour, committee and other rooms in close juxtaposition, extensive suites of offices for the various departments, including supplementary committee rooms for those committees in close touch with departmental work. Especially large and im-

portant rooms were required for the rates office and the engineer's drawing office, the latter, of course, demanding north-east aspect.

Accommodation had also to be provided for caretaker and for the attendance on municipal receptions and banquets.

The Law Courts were to be divided into two main portions, namely the assize courts with the usual adjuncts, open only when assizes are held; and the police courts and headquarters which would be in daily use, these latter including accommodation for the A division of police, the magistrates, the head constable and his staff.

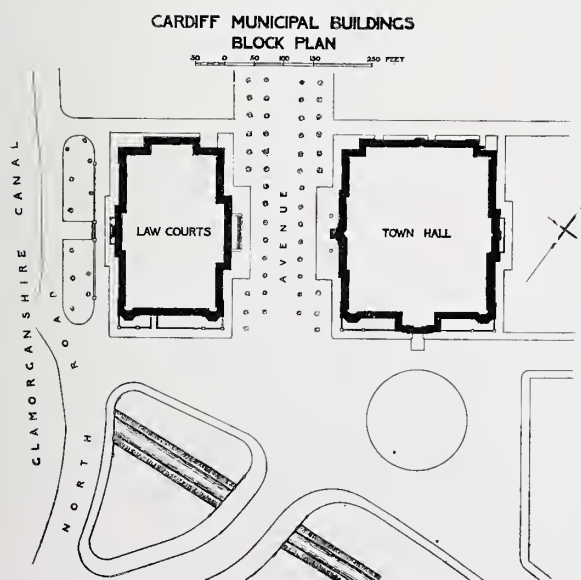
Two assize courts, two police courts, and a wreck court for nautical cases were required, and the convenient arrangement of these with all the necessary rooms and lines of communication offered many interesting problems for solution.

The conditions imposed as to cost allowed of no margin for the waste of space and bulk necessary for the masking of certain features and the blending of many smaller parts into the mass such as is so often done in work of this character abroad, when the architect is allowed a certain licence in these respects. Beyond an allowance made for the raising of the buildings a few feet from the ground, no money has been available for any expenditure above that necessary for the specified contents as set forth in the original conditions.

The first illustration given is a reproduction of a pen and ink drawing made immediately after the adoption of the design. Though certain revisions of the original design are embodied in this, it is yet a mere sketch of the buildings as they are now carried out; for the purpose of this article, however, it serves to show the general composition and effect, from which idea the executed work has been evolved during the progress of erection.

Owing to an extra amount of accommodation which was required, the City Hall was enlarged in width to the extent of two bays of the general façade, with considerable improvement to the proportion of the grouping generally, and also with the result of emphasising the relative importance between the two buildings; otherwise the main features remain in disposition as first conceived.

Perhaps the chief departure from the first study as shown in the drawings is the concentration of the ornament and sculpture, of which we give a general description. Though this is by no means confined to the south or principal fronts, the most important of this work is naturally placed there, but as far as possible the character of these fronts has been continued on all the various elevations. The containing angles of each building are all formed by pavilions of identical design, and an effect of symmetry is thus produced.







GENERAL VIEW OF COMPLETED BUILDINGS FROM THE SOUTH,

*Photo : T. Lewis, Birmingham.*





Photo : T. Lewis, Birmingham.

GENERAL VIEW FROM THE SOUTH-EAST.



The differences in the fenestration are to some extent concealed, and assisted by this means and a sense of solidarity an effect is obtained that would otherwise have been impossible owing to the varied forms and requirements of the interiors of two buildings of such opposite character. This is especially to be felt in the façades towards the Avenue, which enclose interiors widely differing in purpose and entirely different as to levels. Yet they are brought into line and enclosed by the pavilions which, beyond the ornament imposed, correspond in all their architectural forms.

In discussing the principal interest of the exteriors, the south fronts, which practically form one long façade intersected by the avenue, first claim attention. The portion of the City Hall enclosing the domed council chamber and the main entrance under has given scope for a more plastic treatment than the remainder.

The manner of lighting this large room by the central window and from the four angles under the dome has allowed sufficient wall space to partially separate it from the neighbouring work, and thus to suggest a monument complete in itself. The ornament and sculpture here, as elsewhere, has a special significance. The lantern of the dome serves as a pedestal to the lead figure of a dragon, the symbol of Wales. This with the lead ornament of the dome was executed by Messrs. J. W. Singer and Sons from models by Mr. H. C. Fehr; it is an experiment to an unusually large scale in this material, and was cast in seven pieces, built up in an iron frame, and burnt together in position. This and portions of the dome and lantern under are partially gilt.

The large stone panel at the north central window is intended for an inscription, not yet carried out. The two large groups of statuary flanking this represent respectively the sea receiving the Severn and the three



"THE WELSH DRAGON," ON SUMMIT OF THE DOME.

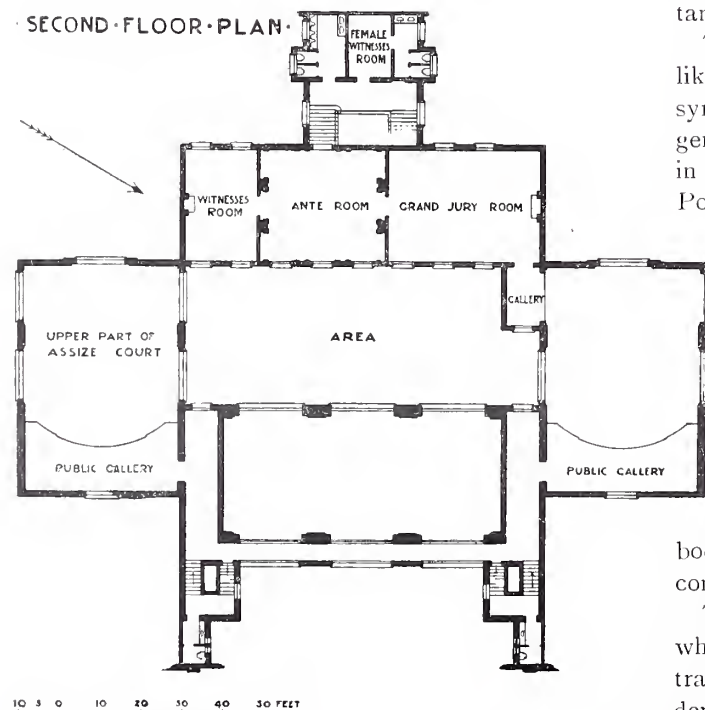
MADE OF CAST LEAD FROM A MODEL BY H. C. FEHR.

ivers of the city, the Taff, the Rhymney, and the Ely; the latter is the work of Mr. Henry Poole, the former of Mr. Paul Montford, who is also responsible for the execution of the ornament to the pilasters on either side of the large window; these suggest the products and character of the North, South, East, and West and the traffic of the city of Cardiff with the four quarters of the globe; while the decorations to the attached porch, also carried out by Mr. Montford, are more the embodiment of the civic emblems and local characteristics. The arms of the town of Cardiff (which has so recently attained the dignity of a city) and the figures to the arch of the large window are due to the assistance of Mr. D. McGill.

The pavilions in their turn have been treated in a like manner, each forming a setting for a large group of symbolical sculpture. Reading from the right of the general view here illustrated, the four groups represent, in allegory, Welsh Unity and Patriotism, Music and Poetry, Commerce and Industry, and Science and Education. The last is from the studio of Mr. D. McGill, the first mentioned from that of Mr. Henry Poole, and the two others are by Mr. Paul Montford.

The remaining decoration to each pavilion has been carried out by the sculptor of the particular group, and an attempt has been made to give a literary and explanatory character to the details of this work, to accompany the motive of the large group, by embodying the actual forms of accessories rather than a conventional and abstract treatment.

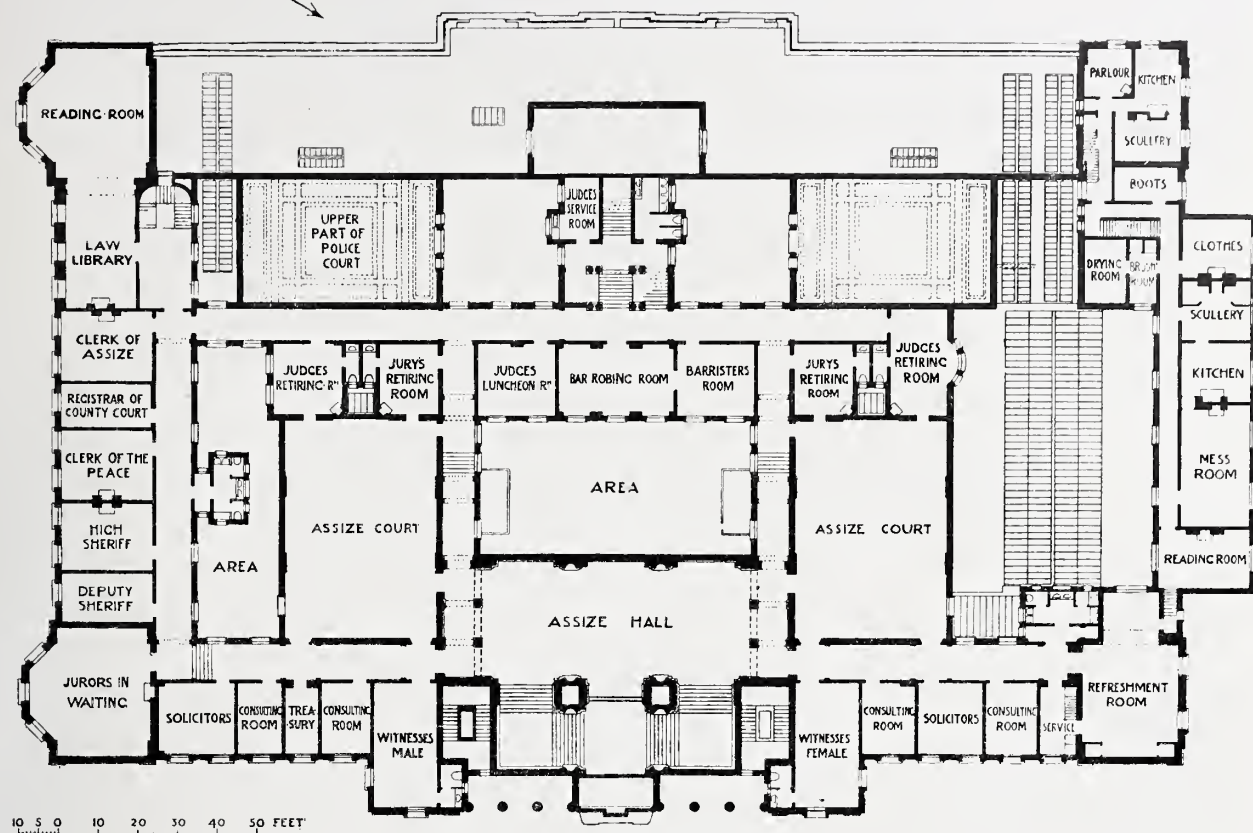
Thus, the whole of this decoration work in stone, while serving the same purpose in effect as the traditional architectural ornament, has an interest derived from the purposes and environment of the buildings which it adorns.



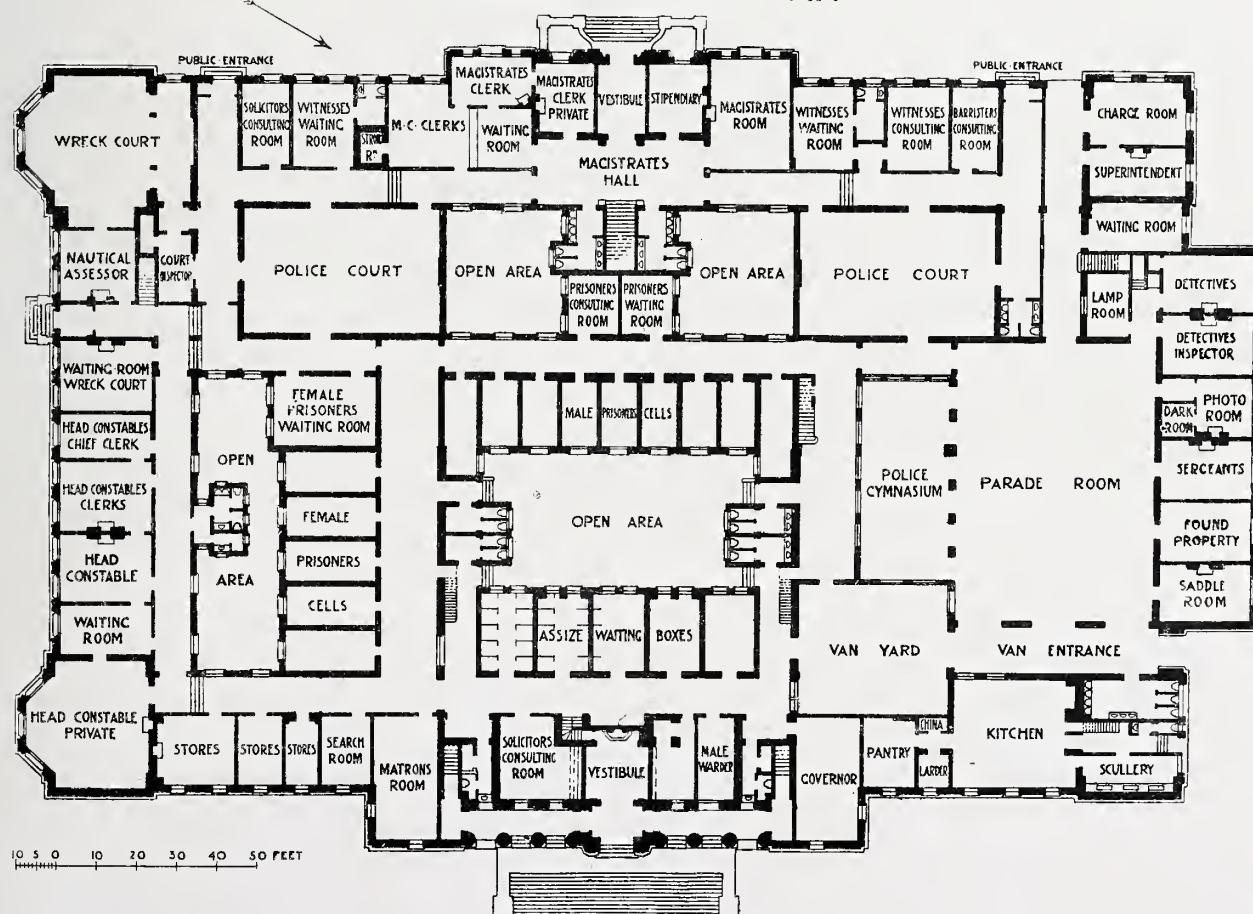
CARDIFF LAW COURTS.



· FIRST · FLOOR · PLAN ·



· GROUND · FLOOR · PLAN ·







CENTRAL PORTION, SOUTH FRONT OF CITY HALL.

*Photo : T. Lewis, Birmingham.*

The two important façades which face the avenue are necessarily marked by different character, though the general heights and cornice are in accord.

This difference is largely veiled by the screen of the trees which line either side of this beautiful thoroughfare which extends right through the park.

The elevation of the City Hall consists mainly of a repetition of the general details of the south front, but its monotony is effectively broken up by the leafage through which it is seen. On the other

hand, that of the Law Courts is scarcely assisted by this, and can only be seen in entirety during the winter months. The view here given shows the south front with the east in sharp perspective with the double loggia flanking the judges' entrance just visible. A reference to the plans will show that the whole of this central portion is treated as a portal containing the various entrances necessitated by this particular class of building. The central doorway is therefore not rendered unduly assertive, and the





SOUTH FRONT OF THE CITY HALL.

*Photo : T. Lewis, Birmingham.*



low relief of the treatment adopted is due to this intention.

The sculpture has been executed by Mr. Albert Hodge, and embodies the Royal Arms and symbols of Justice which are easily recognised from a closer point of view. The sculpture at the base of the architrave is practically at the level of the eye when seen from the pavement level, as shown by the general view of the façade. The two large lamps to the pedestals at either end of the steps are, unfortunately, not yet in position.

The north fronts, which look out on the park behind, are comparatively simple in treatment; beyond a few accessories to the pavilions which are carried out from the same models as those from which the details of the south front were carved, there is little sculpture. A view is, however, given of the bay in the centre of the City Hall, decorated from models by Mr. Albert Hodge. The photograph of this façade includes a picturesque view of the tower as seen above the foliage of the park.

Of the remaining two façades, the east front of the City Hall is remarkable for a large decorative group by Mr. Albert Hodge, of the same proportions as those on the main fronts. Like much of the other sculpture, it is suggestive of the sea and the relation of the city of Cardiff to this element.

The view of the magistrates' entrance shows the centre of the west front of the Law Courts, and the ornament here, as well as in some other instances, is from models by Mr. T. A. Jones, of Cardiff. It is in the same spirit which characterises that before described.

The main tower, while preserving the general form, shows the same modification from the original sketch as the remainder of the design has undergone. The four angle figures of the winds are by Mr. H. C. Fehr, who has supplied models for the other ornament on the tower, including the city arms immediately above the dial of clock. This dial has been constructed in skeleton form, as it was felt that an illuminated face at this elevation would too severely cut up the architectural lines of this ornament. The bells are practically in the open on the level at which the dials are placed.

The interior of these buildings necessarily contains many distinct departments and suites of rooms which are hardly of the scale hinted at by the general design, except in the central portion of the City Hall, devoted to receptions and the hall, and the approaches to the courts in the other building, where every opportunity has been offered for a treatment in harmony with that suggested outside.

In the former instance the staircase hall forms the centre of the suite of large rooms, and being open to the staircase provides a series of vistas at both ground and first floor levels rarely obtainable in the largest interiors. The treatment of the ground floor, lined entirely with Bath stone, is comparatively simple, as it will be practically a hall of assembly adjacent to the cloak-rooms and entrances; but the upper level is more elaborately finished. The monolith columns in Siena marble are blended into the

general scheme by the same material being largely used in the composition of the floor, while the bronze balustrade, and caps and bases to the columns, and the electric light fittings in the same material produce a general golden effect, which is repeated in the note of the painted and stained glass of the windows beyond. These embody the arms of the town and the families associated so intimately with its progress and development. They are from cartoons executed by Mr. Alfred Garth Jones, the well-known decorative artist, and carried out by Messrs. Lowndes and Drury.

The walls are lined with cement and painted with occasional decorations in cast plaster from models by Mr. Henry Poole. This ornament, like much of that in the exterior, is suggestive of the water in its details.

It is much to be regretted that the design of the staircases has not been completed by the painting for which the central ceiling has been designed, but it is hoped that this will be carried out eventually, if not at public expense, by the assistance of a private purse.

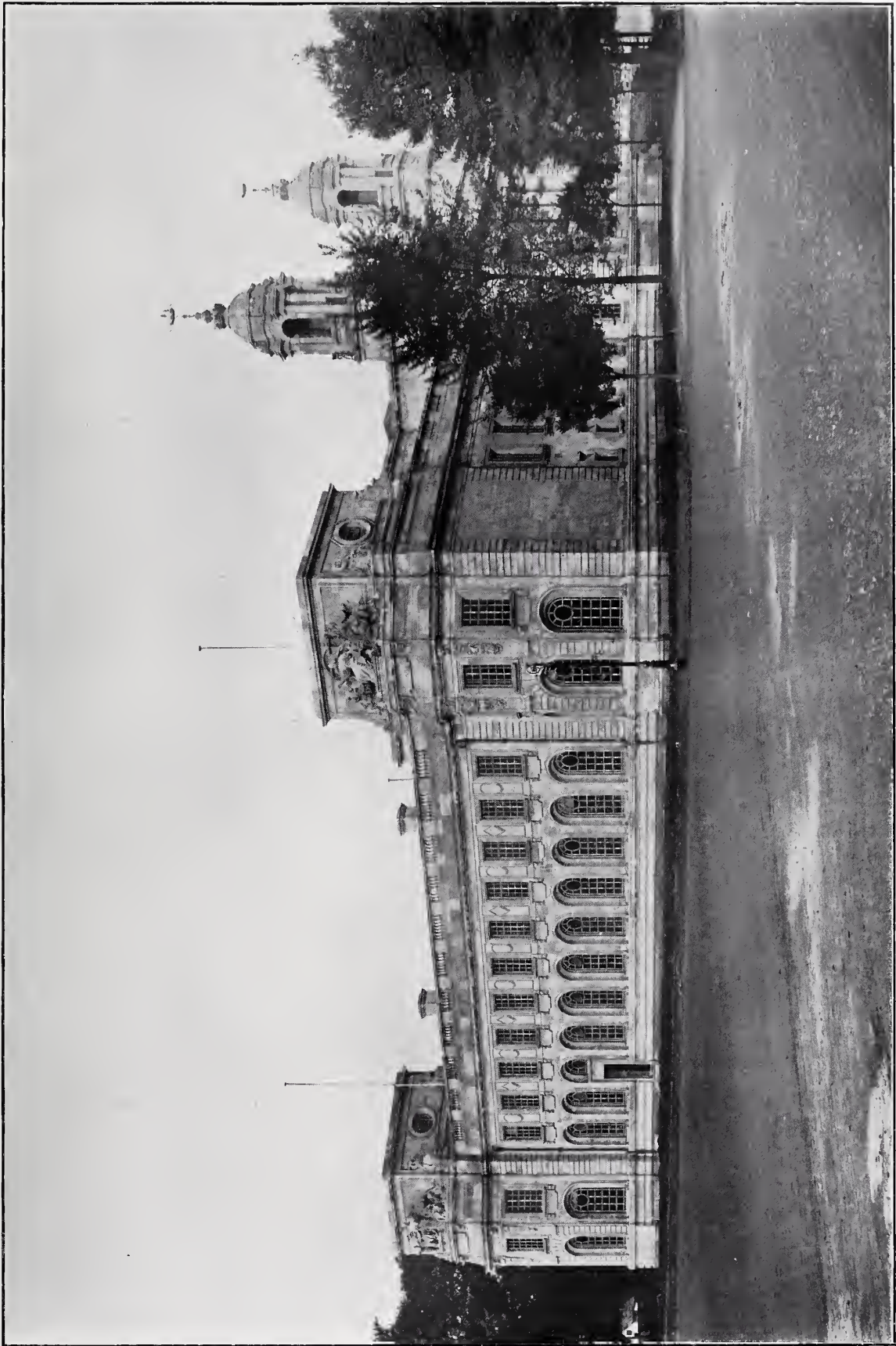
In the same manner the assembly hall would be rendered more complete by certain portions being carried out in colour. The highly ornamented ceiling, which was modelled by Mr. G. P. Bankart, of Bromsgrove, contains panels which might be treated in a pictorial manner, though this would mean a general scheme of colour decoration to contain them. As this room now stands, the one note of colour consists of the three electric light fittings in bronzed wrought iron, which has been made by Messrs. Singer, of Frome, and finished to correspond in effect with the bronze work of the other fittings, and the staircase balustrade is executed by the same firm. These are unusually elaborate in design, and, though weighing as much as a ton each, are suspended from above the ceiling by special gearing so that they can be lowered as occasion demands. The illustration shows a small music gallery at the end, under which are the service doors for banquets, etc.

The council room is entered in the usual course by side doors at the head of each staircase, so that the members are not directly disturbed.

Unfortunately the screen and dais to the Lord Mayor's seat, and the hangings generally, are not yet finished, and further illustrations of this room, and the committee rooms, and mayor's parlour, which are similarly incomplete, must stand over for a while. Another example of stained and painted glass by the same executants as that in the staircase is here to be seen in the large window that forms a conspicuous feature from the outside. The large fitting suspended from the dome is a replica of those in the assembly hall, and the woodwork of the seating and panelling is in Austrian oak with inlay of holly in repeating patterns, and was executed by the general contractors.

The four monolith marble columns are of Fleur-de-Pêche Breccia from Polinice Neris antique quarry; this and all the other marble work is by Messrs. H. T. Jenkins and Son, of Torquay.





*Photo: T. Lewis, Birmingham.*

SOUTH FRONT OF THE LAW COURTS.



Of the other rooms on this floor, we are only able to show a photograph of the luncheon room, which it is proposed shall also be used as a refreshment room on occasions in connection with the assembly hall suite. Space forbids a general view of the rates office on the ground floor in which several departments are included and separated by screen divisions. It occupies the whole of the space under the assembly hall, and is lighted from both sides. The remainder of the ground floor with the exception of the two committee rooms on the south front is devoted to offices which are not yet furnished, so that illustrations for the time are omitted.

It is worth remarking that the City Council of Cardiff have spared no efforts in attempting to render this building and the Law Courts complete even to matters of detail and furniture, which have been executed from our designs for all the principal apartments. (To our regret it has been impossible to obtain photographs of much of this work, though it is practically completed.) We are thus indebted to them for the opportunity afforded of completing this work in a manner which is always so desirable when a general harmony of effect has been the aim.

Passing to the Law Courts, a reference to the illustrations will show that the central lobby of the loggia opens directly on to the staircase to the assize courts hall. The piers and special features of this are in Bath stone, and the plaster and carved stone decoration has been all executed by Mr. Paul Montford. The electric light brackets to the piers and the pendants over the staircase were not fixed at the time these views were taken, and the austerity of effect is thus exaggerated, though the treatment is naturally a more severe one than that adopted for the Town Hall staircase.

The assize court shown is seen from the bench level. The disposition of the seating in all its details has resulted from conference with the leading authorities, with the approval of the majority.

The other views at this level include the law library placed in the south front and occupying one of the large pavilions in close relation to the judges' and barristers' corridor, and the staircase leading from this corridor to the magistrates' hall and entrance, which is thus at the disposal of the judges as a private entrance. One of the police courts is given with a view taken again from the bench level.

Though the character of the work is fairly obvious from the accompanying photographs, it may be desirable to give a few brief notes as to the methods of construction. The whole of the external stonework is in Portland stone, mostly in 13 in. courses, that being the height of four courses of the local bricks.

With the exception of the slated roofs and the dome, which are of timber, the whole of the work is in fire-resisting materials, the steel floor joists and stanchions being embedded in concrete, and the flat roofs and ceilings under timber roofs being similarly treated. The only exceptions are the large ceilings over the assembly hall and ante hall, which are for the sake of lightness formed of expanded metal fixed to steel

angles and plastered. These, and the other larger roofs, have steel principals, from which the ceilings are suspended.

Under the main corridors are ducts of the same width, primarily for use as inlet and extract ventilators from all the various rooms, but also of the greatest service in providing runs for the numerous pipes, etc., required in heating, water supplies, electric light, and telephones.

The whole of the fittings, including all wrought metal work and most of the stoves, were specially designed by us for the buildings, and carried out by the firms mentioned at the end of these notes.

With regard to the warming and ventilation, one desirable feature was aimed at from the commencement of the design, namely, that of having a centralised boiler-house and plant. This is situated in the courtyard of the City Hall, from which either or both buildings are served with heat or hot-water as desired.

The whole of the warming system is worked on what is now familiarly known as the "Vacuum" system, and has been installed under the Atmospheric Heating Co.'s patents. By means of this system the temperature of the heating surface is reduced, and no "water" or "air-hammer" is possible.

The general contractors, Messrs. E. Turner and Sons, of Cardiff, have throughout the work taken the greatest interest in its adequate execution.

In order to cover the large area of the site, they erected eight electric derrick cranes with 80 ft. steel lattice jibs, in addition to several other steam cranes and hoists. By this arrangement, stones up to 5 tons in weight were picked up from the ground and placed at once in their position in the buildings.

To cope with the large amount of stonework used a very extensive stoneworking plant was laid down, including a large diamond saw, five horizontal frame saws, and eleven steam moulding machines. Messrs Turner have, moreover, carried out all the fittings of the council chamber and much of the other cabinet work.

In addition to the various works previously mentioned, we should like to draw attention to the wrought ironwork and electric fittings by Messrs. Veitch and Fenn, the stoves by Messrs. Bratt, Colbran and Co. and the Carron Co., the sanitary work by Messrs. Shanks and Co., and the steel window sashes by Messrs. Henry Hope and Sons. Mr. John P. White carried out the oak panelling, seating, desks, etc., in the civil and criminal courts, the bookcases and panelling in the law library, the oak desks in the rates office, and a large number of specially designed oak tables throughout the building. Messrs. Hampton and Sons are supplying chairs and special hangings, and Messrs. Waring and Gillow are supplying the desks for the various offices.

In conclusion, we should like to pay a brief tribute to the memory of our late partner, Mr. James S. Stewart, who shared all the labour in the original design, but who has not, to our grief, been spared to see the actual completion of the work, which is now at hand.

LANCHESTER AND RICKARDS.

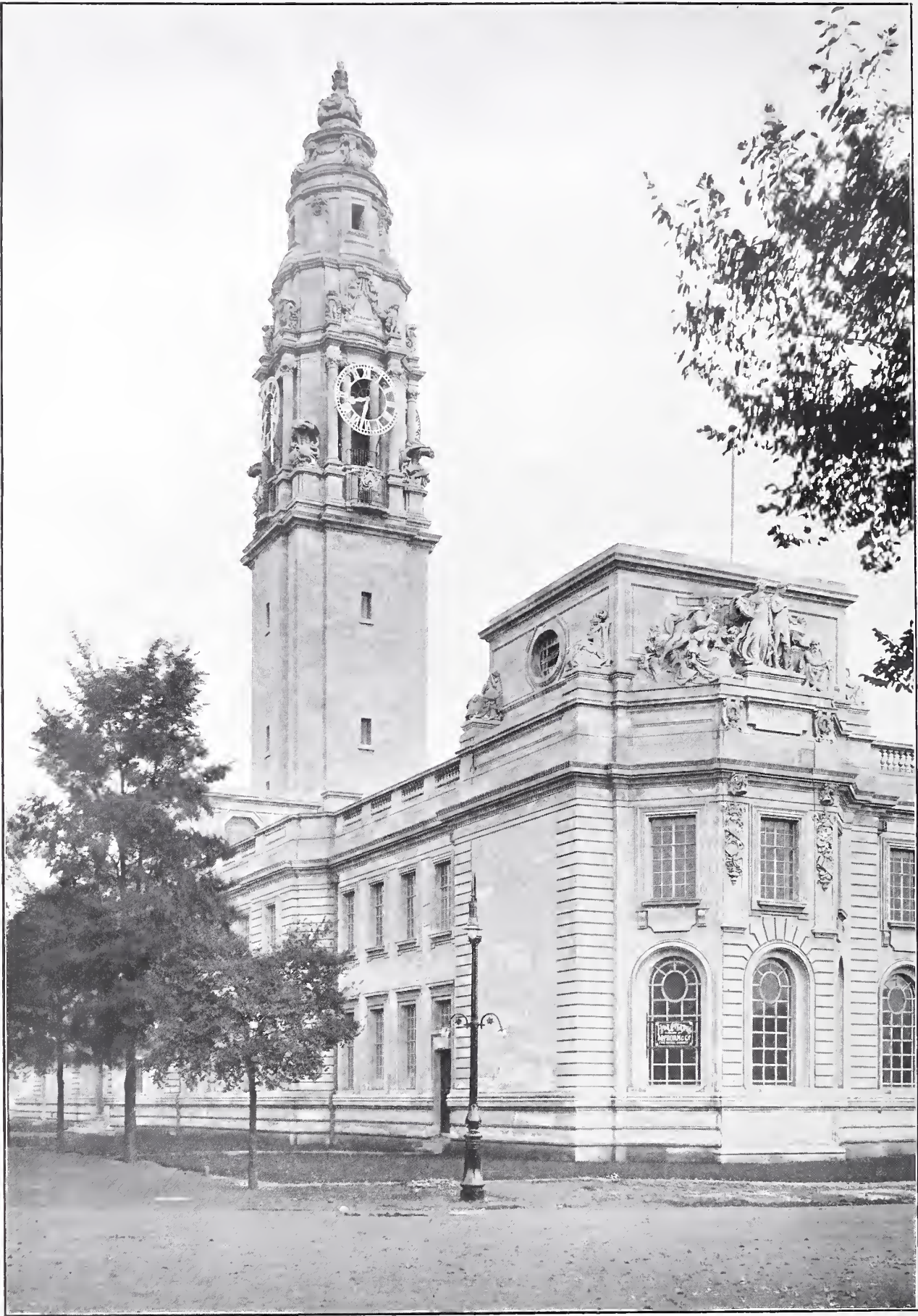




SOUTH-EAST PAVILION, SOUTH FRONT OF CITY HALL.

Photo: T. Lewis, Birmingham.





*Photo : T. Lewis, Birmingham.*

SOUTH-WEST PAVILION, SOUTH FRONT OF CITY HALL.





SOUTH-EAST PAVILION, SOUTH FRONT OF LAW COURTS.

*Photo : T. Lewis, Birmingham.*



*Photo: T. Lewis, Birmingham.*

THE REFRESHMENT ROOM, FIRST FLOOR OF CITY HALL.

## CARDIFF CITY HALL AND LAW COURTS.

LANCHESTER and RICKARDS, Architects.

H. C. FEHR, ALBERT HODGE, T. A. JONES, D. MCGILL, PAUL R. MONTFORD, and HENRY POOLE, Sculptors.

SIDNEY YOUNG and W. P. BROWN, Quantity Surveyors.

E. C. HOWELL, Clerk of the Works.

E. TURNER & SONS, Cardiff, General Contractors.

FRANK J. THOMAS, Works Manager.

### SPECIAL CONTRACTORS:

Heating, Ventilating, and Cooking Plant—ASHWELL & NESBIT, Ltd

Electric Wiring, Telephones, etc.—EDWARDS & ARMSTRONG.

Structural Steel Work—LYSAGHT, Ltd.; A. DAWNEY & SONS, Ltd.

Marble Work—H. T. JENKINS & SON.

Lead Work—WENHAM & WATERS.

Sanitary Works—SHANKS & Co.; TWYFORDS, Ltd.

Lifts—LUCAS & SON.

Ornamental Metal Work, etc.—J. W. SINGER & SONS; HARDMAN, POWELL, & Co.; ESCARE & DENELLE; ELKINGTON & Co.

Wrought-iron Work and Electric Fittings—VEITCH & FENN.

Stained Glass—A. GARTH JONES (Cartoons); LOWNDES & DRURY.

Stoves—BRATT, COLBRAN & Co.; THE CARRON Co.

Lightning Conductor Materials—ANDERSON & Co.

Mosaic Pavements—DIESPEKER, Ltd.

Locks—T. JONES, LOCK & Co.

Clocks and Bells—GILLETT & JOHNSTON.

Ornamental Plastering—G. P. BANKART; NICHOLLS & Co.

Steel Window Sashes—HENRY HOPE & SONS.

Stone Carving—W. W. TAYLOR; W. H. WORMLEIGHTON.

Fittings and Furniture—E. TURNER & SONS; JOHN P. WHITE;

HAMPTON & SONS; WARING & GILLOW, Ltd.

Blinds and Curtains—JAMES HOWELL & Co.

Linoleum—MORGAN & Co.

Rubber Mats—A. H. N. REDDAWAY.

Mats, Baskets, etc.—CARDIFF BLIND INSTITUTE.





*Photo : T. Lewis, Birmingham.*

CARRIAGE PORCH, SOUTH FRONT OF CITY HALL.





ENTRANCE DOORWAY IN STAIRCASE HALL, GROUND FLOOR.



SIDE VIEW OF CARRIAGE PORCH.

*Photos : T. Lewis, Birmingham.*





THE LOGGIA OF LAW COURTS, FROM THE AVENUE.  
VOL. XX.—T

*Photo : T. Lewis, Birmingham.*





CENTRE BAY, NORTH FRONT OF CITY HALL.

*Photo: T. Lewis, Birmingham.*





Photo : T. Lewis, Birmingham.

NORTH FRONT OF CITY HALL.



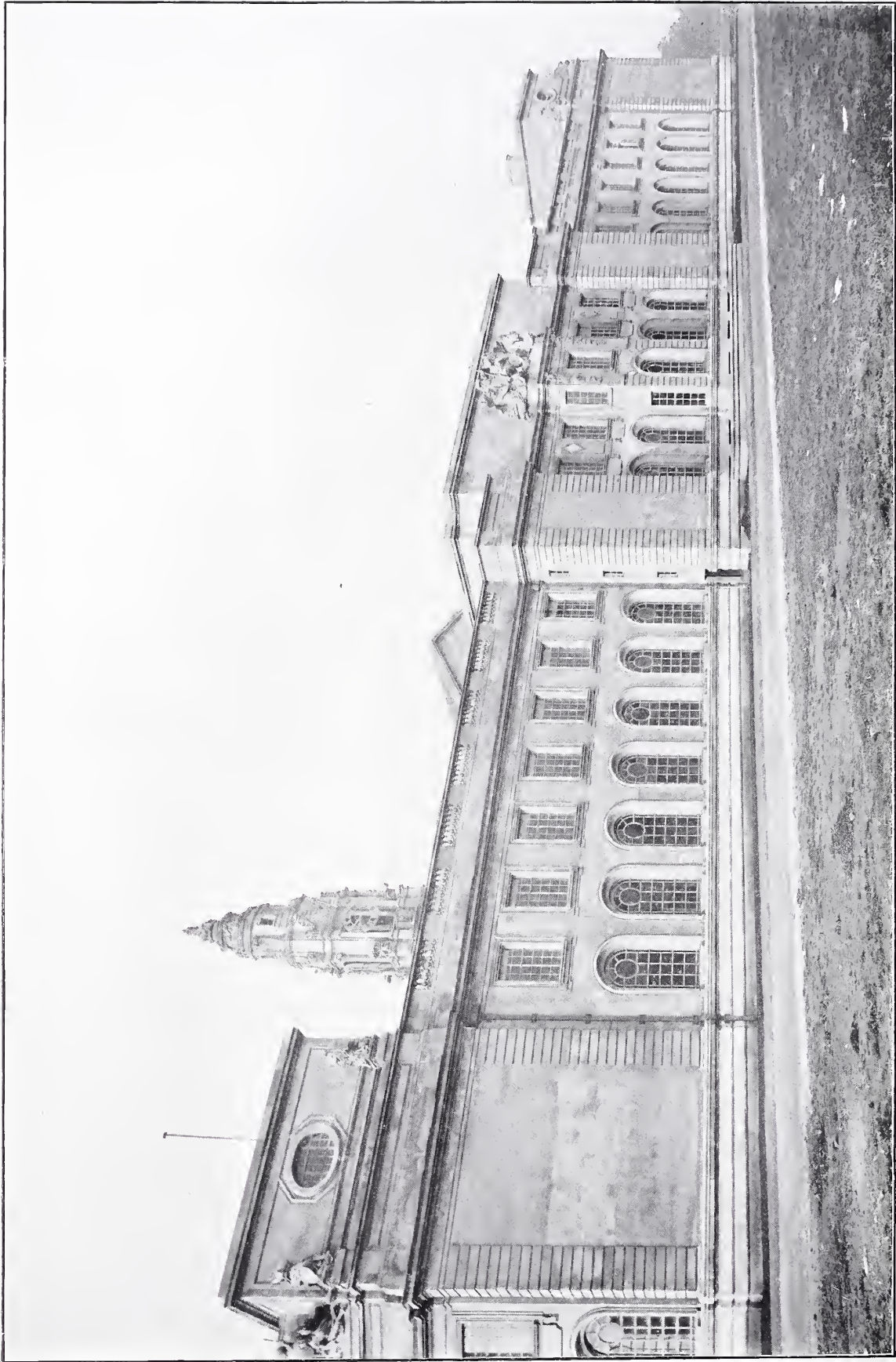


Photo. T. Lewis, Birmingham.

EAST FRONT OF CITY HALL.





Photo : T Lewis, Birmingham.

STAIRCASE HALL, FIRST FLOOR. CARDIFF CITY HALL.





*Photo : T. Lewis, Birmingham.*





CARTOON FOR PAINTING OF CEILING OF STAIRCASE HALL,  
CARDIFF CITY HALL. BY CHARLES SIMS.





Photo: T. Lewis, Birmingham.

THE ASSEMBLY HALL, CARDIFF CITY HALL,





*Photo: T. Lewis, Birmingham*

STAIRCASE HALL, GROUND FLOOR. CARDIFF CITY HALL.





*Photo: T. Lewis, Birmingham.*





*Photo : T. Lewis, Birmingham.*





*Photo : T. Lewis, Birmingham.*

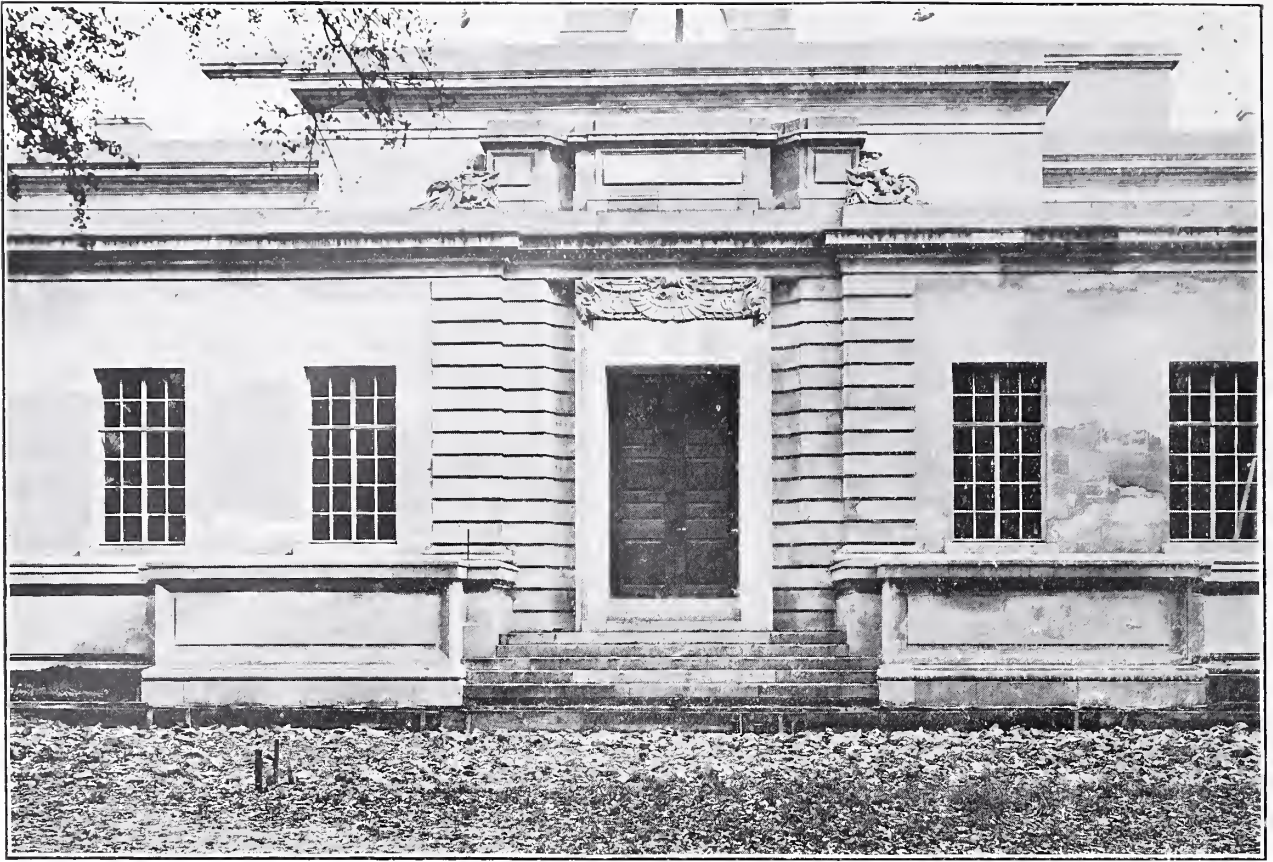




*Photo : T. Lewis, Birmingham.*

AN ASSIZE COURT FROM THE BENCH LEVEL.





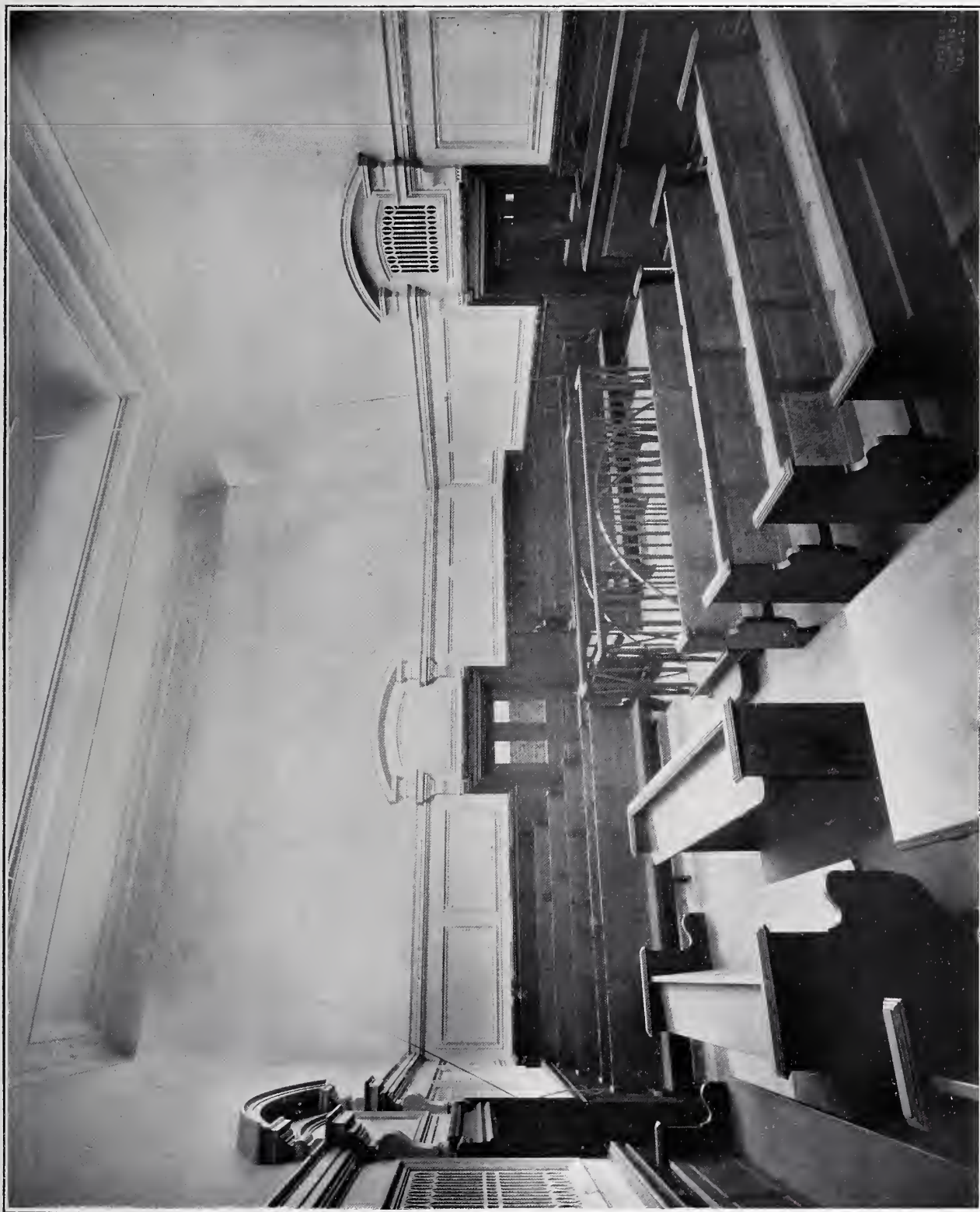
The Magistrates' Entrance.



Magistrates' Entrance Hall.

*Photos : T. Lewis, Birmingham.*

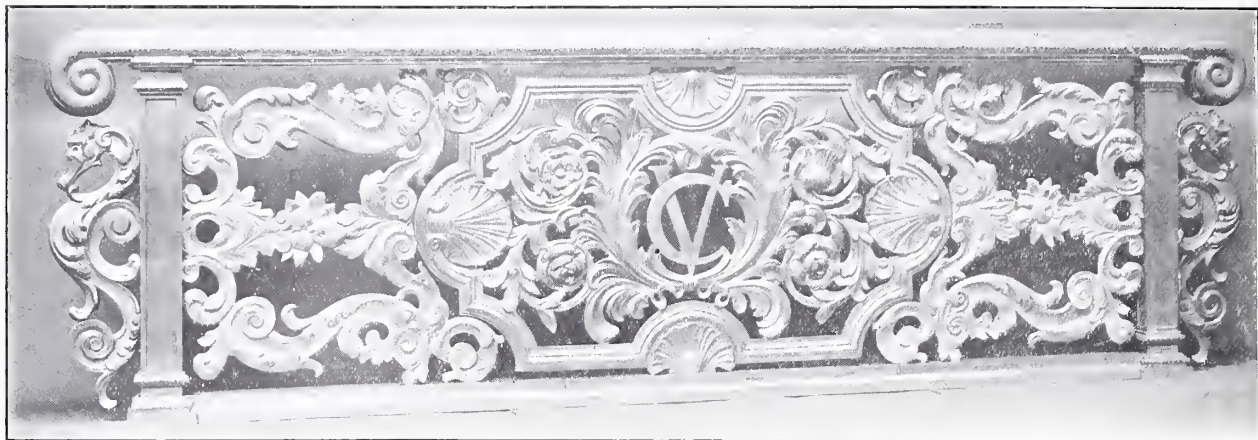




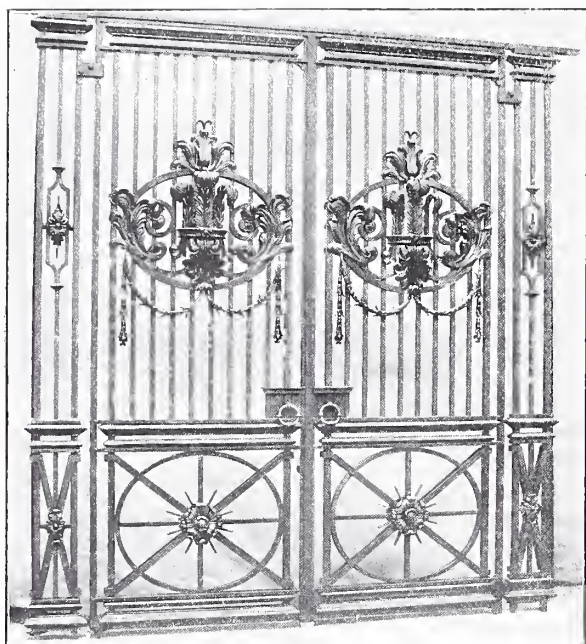
*Photo: T. Lewis, Birmingham*

A POLICE COURT FROM THE BENCH LEVEL.

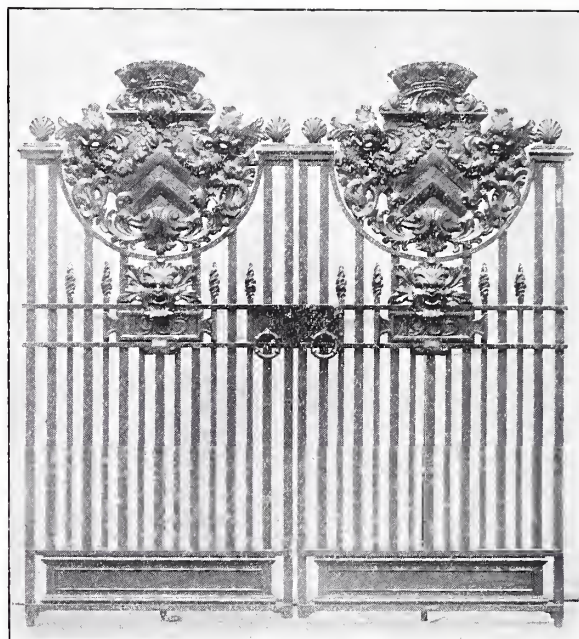




Portion of Bronze Balustrade to Staircase of City Hall.



Gates to Corridor in Wrought Iron.



Entrance Gates in Cast and Wrought Iron.



Electric Light Fitting.  
CARDIFF TOWN HALL. METAL-WORK.

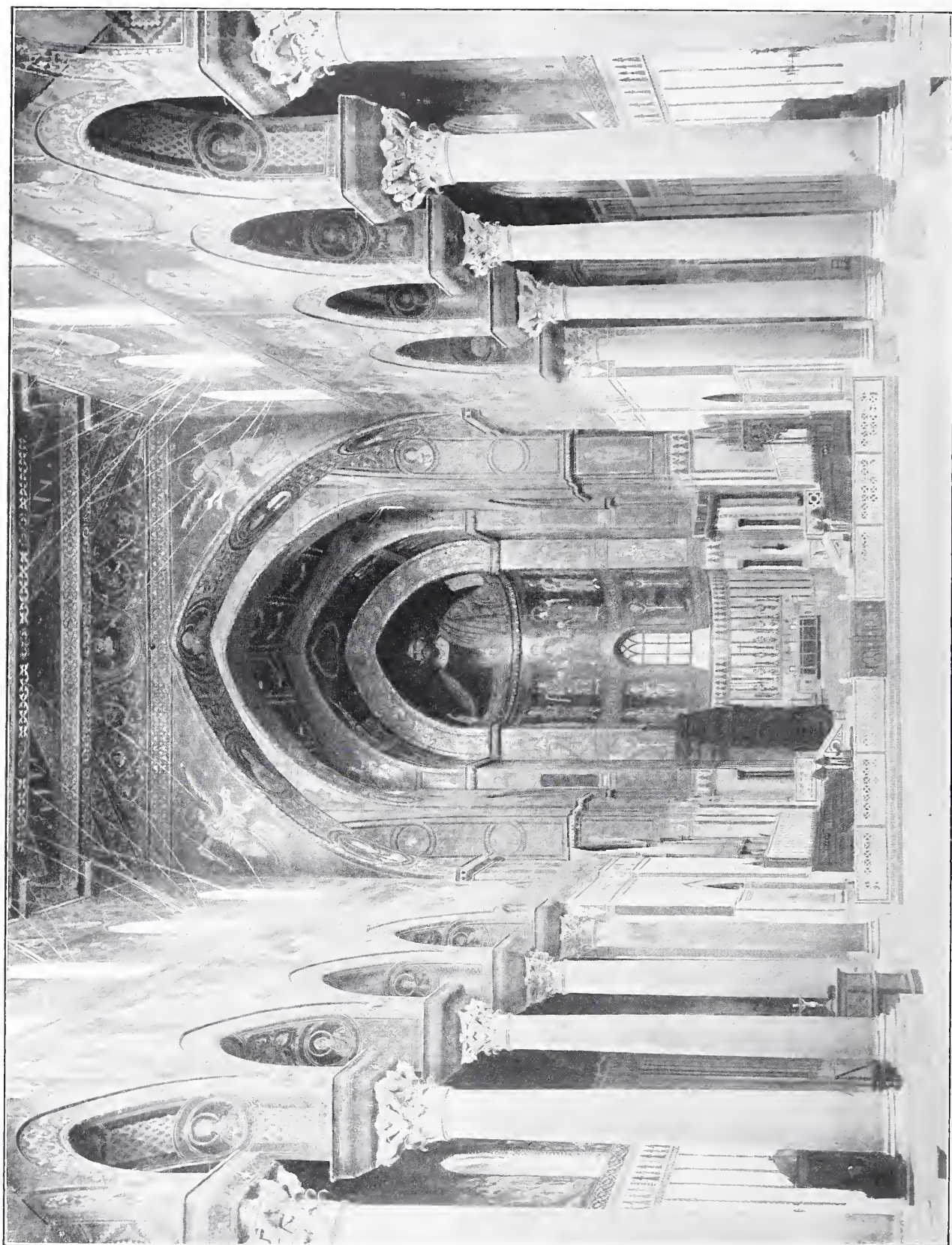


Electric Light Fitting.



THE ARCHITECTURAL  
REVIEW, DECEMBER,  
1906, VOLUME XX.  
NO. 121.





MONREAL. INTERIOR LOOKING EAST.



## Some Aspects of Sicilian Architecture.—II.

IN no other country except Egypt does there exist so great a contrast between ancient and mediæval forms of architecture, evolved under the same conditions of climate and material, as we find when passing from the temples of Girgenti to the churches of Palermo. It is not merely that the methods of construction and decoration are fundamentally different: the motive of the structure itself is changed. For while the Greek temple was designed almost entirely for external effect, the mediæval church in Sicily was first and foremost an interior, the scheme of construction being worked from the inside, and the exterior left to be dealt with as best it might be.

The course of Sicilian history is very clearly seen in the blending of Byzantine and Saracenic influences in the churches erected for the Normans. There are hardly any remains of churches or mosques of either period, but from the former we trace one type of plan, many features of construction, and the magnificent system of mosaic decoration, while the Saracens brought their own pointed arch and their methods of colouring in geometrical patterns. In many plans the influ-

ence of the basilican churches of Rome is visible, and the characteristic "opus Alexandrinum" is used for pavements, screens, and panelling as lavishly as in Central and Southern Italy.

Following the Roman and Byzantine custom the actual construction preceded the decoration, and the skeleton of the typical Sicilian church is well shown by the interior of S. Cataldo, a diminutive building of the twelfth century, divided by four detached columns into a nave in three domed compartments, and side aisles covered by pointed barrel-vaults.

The circular dome is connected with its square substructure in a way which is peculiar to Sicily; the builders of this period, though familiar with the pendentive as a means of effecting the transition, preferred to discard it in favour of recessed squinch arches in the angles, abruptly cut off at the base and overhanging to some extent the walls below; and it has been suggested that this arrangement, which is not very satisfactory in effect, was an imitation, on a larger scale, of the recessed arch forms which compose the "stalactite" decoration universally found in Saracenic work.

The church never received its mosaics, but even in its present state it produces an effect of size and space which is remarkable considering that the extreme length is less than thirty feet.

The exterior is entirely Eastern in design; the walls are crowned with an Arabic frieze and cresting, and the three domes rise from a flat roof. Anything less like an ordinary Italian church it would be difficult to conceive, and the same may be said with equal truth of S. Giovanni degli Eremiti, a church of earlier date and greater size, which was built on the site of a mosque, parts of which are still incorporated with it.

The plan is basilican, but has no aisles, and the apse projects directly from the transept without an intervening chancel. The interior is again perfectly plain and unadorned, but the external effect of the short



S. CATALDO. INTERIOR LOOKING EAST.

FROM A SKETCH BY RONALD P. JONES.



tower and the group of domes with their eastern outline and dark red colouring is extremely picturesque. The small cloister dates from a later period and shows more Romanesque influence: the arch retains the Saracenic form without mouldings, but the inner ring of voussoirs is recessed, as is the case to a slight extent on the tower, and a kind of label moulding runs above the arches. Two other examples of the basilican type show characteristic Sicilian features—S. Giovanni dei Leprosi, built in 1071 and probably the earliest of the Norman churches, with squinch arches under the dome as at S. Cataldo; and S. Spirito, also known as the Church of the Vespers, where the arcades of the nave are of the severest and most rudimentary form, while the exterior of the apse displays an early form of that surface decoration in materials of two colours which was afterwards brought to such a degree of elaboration.

La Martorana, on the other hand, was originally Byzantine in plan with a single central dome, but in later times the nave was extended to the west, and the mosaics were much damaged and replaced by painting.

The full effect of these Palermitan churches of moderate size is now only to be realised in the gorgeous Capella Palatina, which with the cathedral at Monreale represents the highest development of the system of small window openings and broad wall spaces with colour decoration in marble and mosaic, found also in St. Mark's at Venice, and in the Ravenna churches, and contrasting with the principle which guided the Northern cathedral builders, who strove to eliminate all wall surfaces to make way for their tracery and stained glass.

The chapel is not much more than 100 ft. in length, and may be compared in scale and dimensions with the college chapel of the English universities. As it forms part of the great mass of buildings composing the Norman Palace, the exterior receives no special treatment and is hardly distinguishable. It is entered from an upper



PALERMO. S. GIOVANNI DEGLI EREMITI, FROM THE CLOISTER.  
FROM A SKETCH BY RONALD P. JONES.

arcaded gallery running round the courtyard, and consists of a nave and aisles leading to a raised chancel with apse and transepts, covered by a central dome of some height pierced with windows. The arches throughout are purely Saracenic, resembling closely those of the Mosque of Tûlûn at Cairo, which are earlier by nearly three centuries; in the apse the outline suggests the horse-shoe form which was afterwards so much exaggerated, especially by the Moors in Spain. The columns of the nave are evidently antique and must have been taken from some building of the Roman period, and the capitals follow the usual Corinthian type, which is not well adapted to receive the square arch section.

The naves of the Sicilian churches are never vaulted, and here the timber roof is concealed by a mass of stalactites carved in wood and profusely coloured and gilded. Seen in the subdued light which penetrates through the tiny windows of the clerestory, the effect of this roof is surprisingly good, and it contrasts well with the flood of light which pours down from the dome and glances off



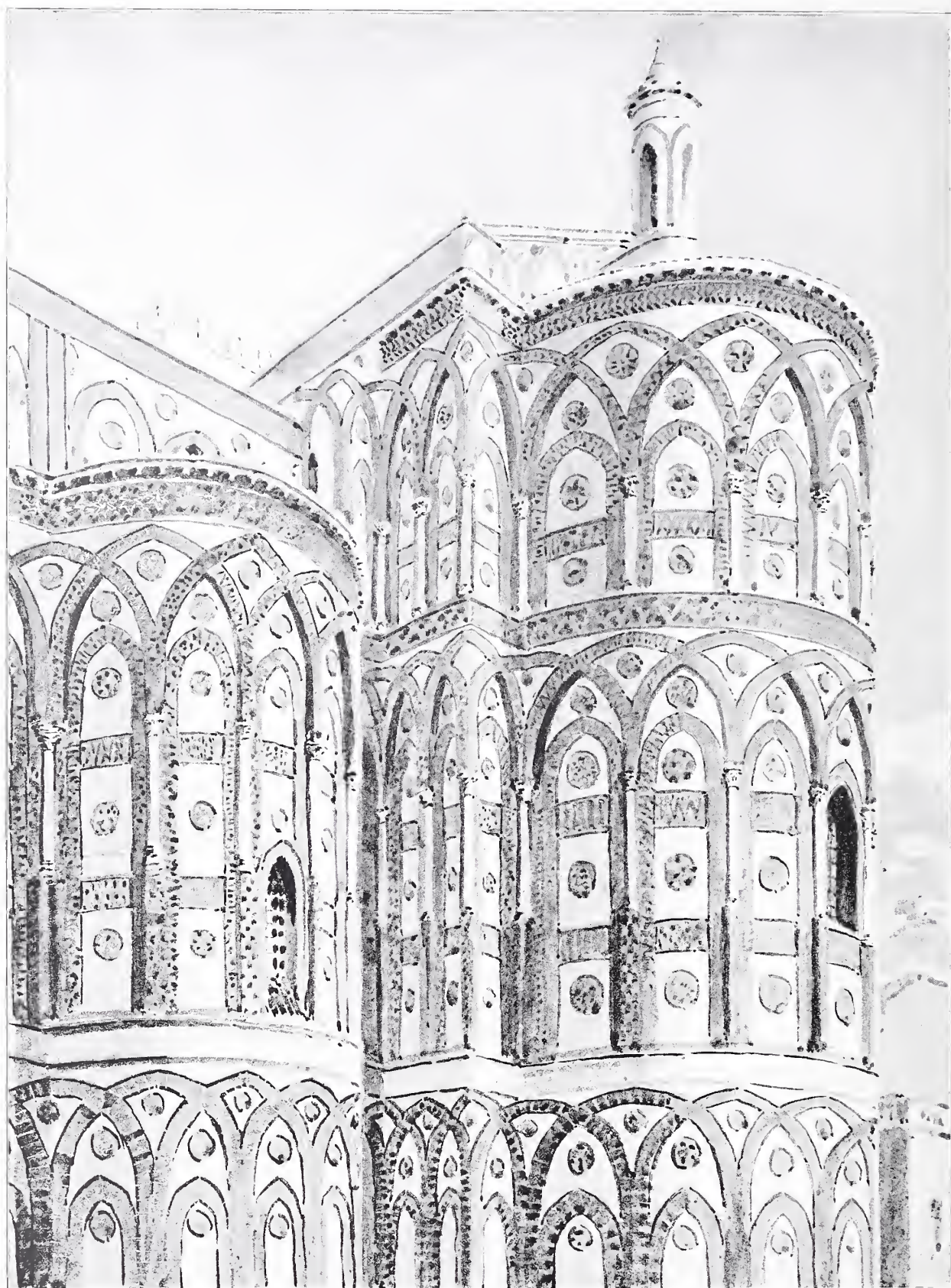


Interior of the Capella Palatina.



West Side of the Cathedral.  
PALERMO.





MONREALE: THE APSE.

FROM A SKETCH BY RONALD P. JONES.



the rounded angles of the chancel arches in lines of sparkling gold.

The splendid mosaics which cover the whole of the upper wall surface consist of figures and heads in medallions connected by bands of foliage or geometrical ornament, and are entirely Byzantine in design and execution.

The dome rests on the usual squinch arches, but in this case the lower edges are rounded off, thus giving the soft curved surfaces which are essential for the proper effect of gold mosaic; and the arches in the earlier churches would no doubt have been so treated when they came to receive their decoration.

The "opus Alexandrinum" of the pavement, screens, and pulpit rivals the most elaborate work of the Cosmati at Rome, and the aisle walls are faced by a dado of marble panelling with lines of inlay, above which runs a frieze designed in imitation of the Saracenic cresting found in some form on all the Egyptian mosques.

We can see no trace of influence from the Normans themselves, for whom the chapel was erected; but the whole result of this mixture of architectural forms and decorative systems from Rome, Constantinople, and Cairo, is an interior harmonious in design and exquisite in colouring, no less worthy than St. Mark's of the rapturous praises of a Ruskin.

The same effect must once have been produced on a far greater scale in the cathedral founded half a century later by the English Archbishop Walter. Nothing remains of the first interior but the series of tombs of the Norman kings. The rest was irretrievably ruined by Fuga, who in 1800 modernised the whole cathedral and added a commonplace dome over the chancel.

The exterior is a hybrid but picturesque collection of work dating from many periods, with a flat roof and Arabic cresting, and wall surfaces richly decorated with arcading and bands of geometrical patterns in light and dark stone. The fourteenth-century tower, which rises from the archbishop's



MONREALE: THE CLOISTER AND WESTERN TOWER.

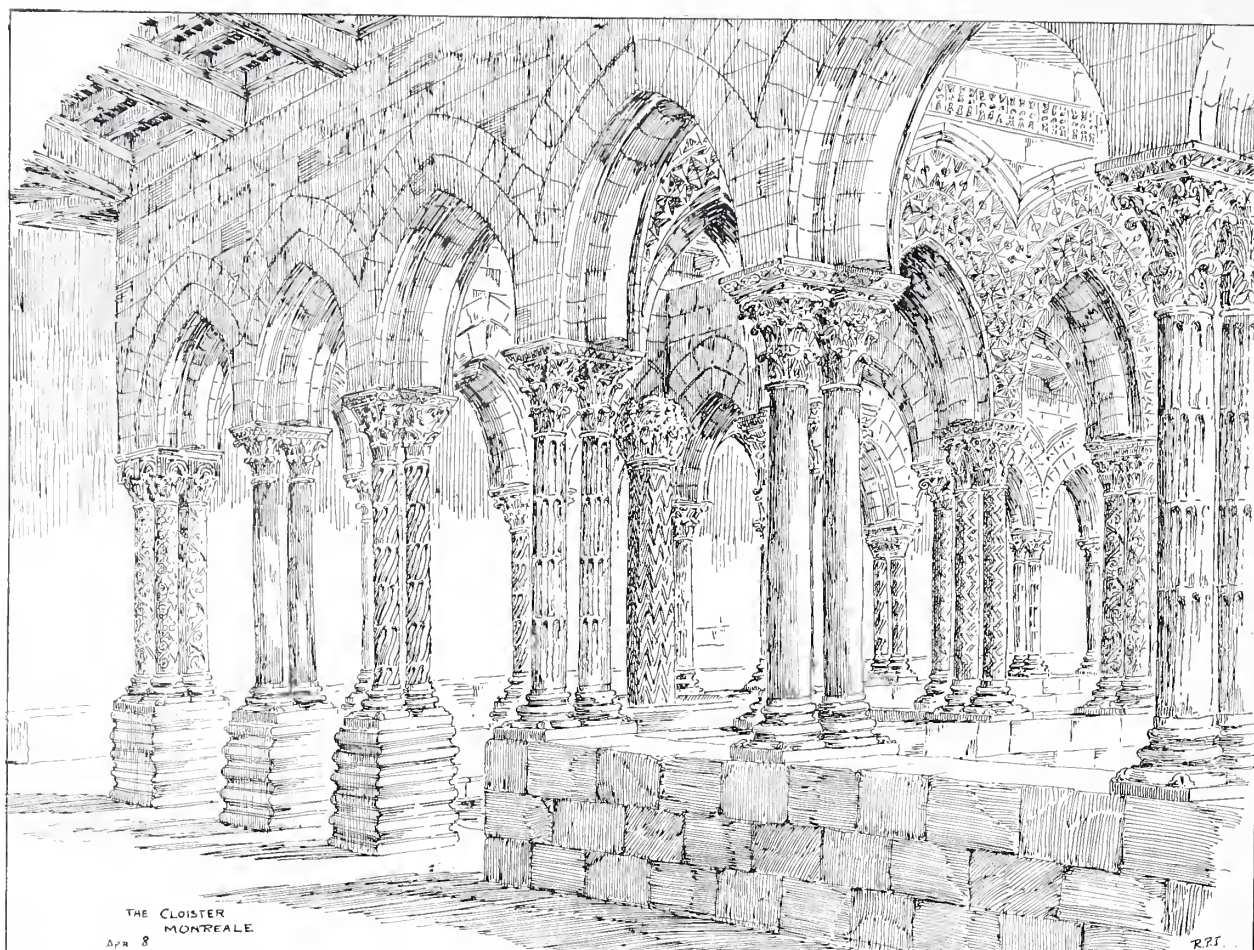
FROM A SKETCH BY RONALD P. JONES.

palace at the west end, and is connected with the cathedral by two great arches spanning the road, forms a pyramidal structure of pinnacle and tracery, Gothic in detail but not in general effect, while the following century added the deep south porch, faced with three pointed arches, and crowned by a low gable of pediment form which gives to it almost the exact outline and proportions of the temple portico at Segesta.

The climax of mediæval architecture in Sicily is reached at Monreale, the "Royal Mountain," rising above the lemon groves of the luxuriant plain surrounding Palermo. Here a Benedictine monastery was founded by William II. in the twelfth century, on a scale of great magnificence, and the church and cloister have remained almost unaltered to the present day.

The exterior possesses two towers at the west end, and is very simply treated with the exception of the eastern apses. Here the Saracenic





MONREALE: THE CLOISTER.

FROM A SKETCH BY RONALD P. JONES.

decorator found a clear field; in the whole of the vast surface there are only three small window openings, and the wall face is unbroken by buttresses, mouldings, or other projections. He applied to it a system of interlacing arcades on slender columns, filling in the spaces by friezes, bands, and circles of ornament with inlaid patterns of geometrical design, following in every detail the woodwork, tile-work, or metal-work of the Cairene mosques. This eastern façade, with its mellow colouring of cream and golden browns, forms a piece of surface decoration as beautiful as it is utterly unlike anything we are accustomed to look for in ecclesiastical architecture. At the west end there is no attempt to repeat this treatment, and the only work which claims attention is of more familiar type—a pair of bronze doors made by Bonannus of Pisa.

The interior is planned on a large scale, as a basilica over 300 ft. in length: the nave is in eight bays, and the pointed arcades are carried on monolithic Roman columns with capitals of great beauty, preserving the Corinthian outline, but varied in design, and in most cases well adapted to the projecting Byzantine dossier which they support, while the arches are still Saracenic, but not stilted as in earlier churches.

The clerestory windows are small, but ample for the brilliant sunshine of Sicily, as they were, of course, never intended for stained glass. The timber roof is left entirely open and decorated with Saracenic patterns in gold and colour. As regards the pavement, panelling, and mosaics, the whole scheme of decoration follows that of the Capella Palatina on a greater scale, and if possible with greater elaboration.

The arcading stops at some distance from the transept arches, thereby providing a length of solid wall to receive their thrust, but it does not appear that a dome was ever erected over the crossing, no doubt on account of the dimensions, which far exceeded those familiar to the Saracenic builders.

The chancel and apse are built up of masses of walling with very little subdivision, in order to obtain the best possible field for the mosaics, and everywhere the sharp angles are rounded off, so that while in a Gothic church the forms are emphasised by bands of shadow in the shafts and mouldings, they are here defined by a single brilliant outline where the gold tesserae reflect the light.

The interior of Monreale, whether considered in detail or in general effect, must be pronounced as supreme in the South as Chartres or Rheims in



the North. There is only one church of its kind which can be compared with it; but the low and dimly-lighted vaults of St. Mark's appear gloomy and oppressive after the golden sunlight and magnificent spaciousness of the Sicilian church, and it would almost seem that here, in the centre of the Mediterranean, the influences of Eastern and Western art have united to form one perfect whole.

Nor is the cloister unworthy of the church; it is among the largest and most elaborate of the Romanesque type in which the open arcades are carried by pairs of slender columns resting on a continuous plinth wall. At the angles four shafts are grouped together and covered with arabesque of Byzantine character beautifully carved in low relief. The coupled shafts were inlaid with mosaics in the "Cosmato" manner in zigzag or twisted flutings, and though the



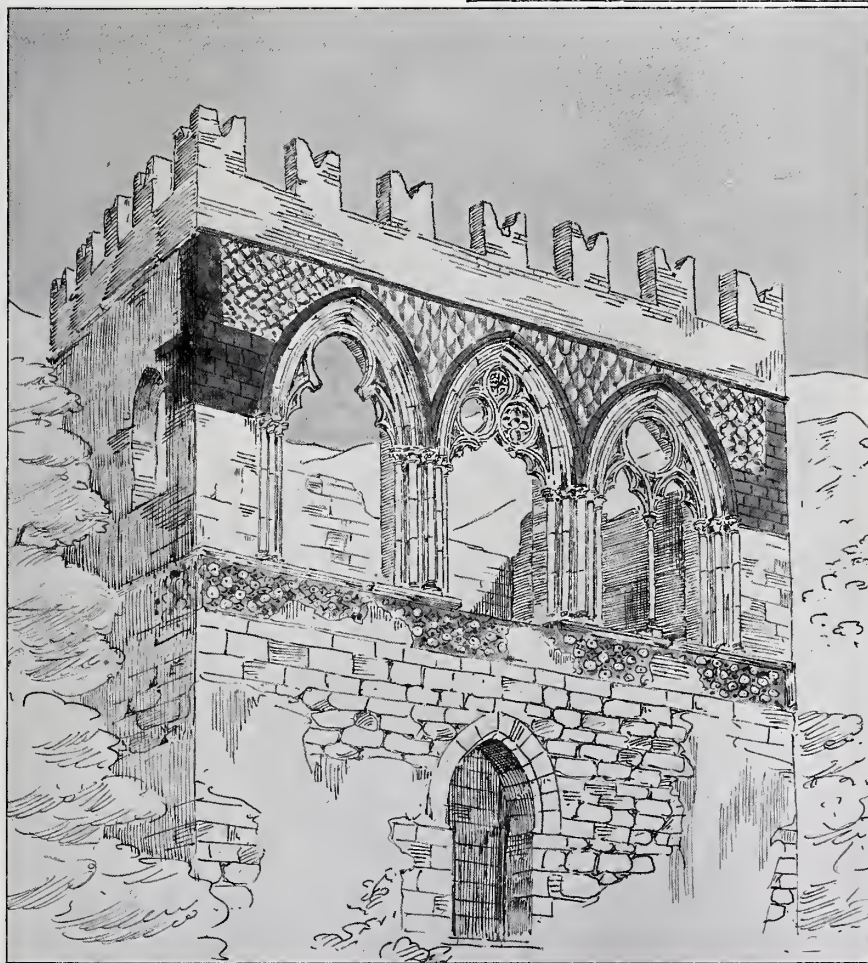
Photo: R. P. Jones

GIRGENTI. S. NICOLA:  
THE WEST END.

mosaics have nearly all disappeared the channellings themselves produce a decorative effect.

The capitals, over two hundred in number, form a series of unequalled beauty, and the carving varies in each instance according as the sculptor was more strongly affected by Saracenic, Byzantine, or Romanesque influence; in some cases foliage alone is used, while in others, birds, animals, figures, and architectural canopies are introduced.

A feature peculiar to this cloister is the bold moulding on the arch soffit. Its presence here is almost inexplicable, as no provision is made in the abacus to receive it, and the central roll is cut off abruptly at the springing. A moulded arch section occurs in a church of this period at



TAORMINA: THE BADIA.  
FROM A SKETCH BY RONALD P. JONES.



Syracuse, and we can only conclude that the Norman abbot at Monreale preferred to use this form rather than a square section, but that his Saracenic builders did not understand how to adapt the shafts and capitals to a feature so unusual in Palermo, though more familiar in the eastern parts of the island where the Romanesque influence of Southern Italy had penetrated more strongly.

The outer face of the arcading is decorated with patterns in light and dark stone, as on the apse of the church, following the lines of the voussoirs, and based on the hexagonal star—the foundation of all the radiating designs in Arabic work. Above this runs a frieze, and the cloister is roofed by a simple timber ceiling covered with tiles.

At the south-west angle the arcading projects into the quadrangle and encloses a fountain in which the water falls from the top of the central column with deeply cut chevron flutings and a capital of globular form.

The Eastern richness of this cloister, and the beauty of the garden, full of flowers, palms, and tropical foliage, is enhanced by contrast with the severe simplicity of the exterior of the church

and the stern Norman tower which rises on its west side.

Palermo possesses at least one genuinely Gothic church in S. Agostino, dating from the fourteenth century; but Gothic influence was never established here as fully as at Messina and other towns in the west of the island in close contact with the mainland. How far these districts were affected may be seen in such a building as the Badia at Taormina, a charming little façade of which the three traceried windows would not be out of place in an English cathedral, though even here the Saracenic touch appears in the surface decoration formed by inlaid pieces of lava from Mount Etna.

Finally, in cities of earlier importance, such as Syracuse and Girgenti, direct Classic influence is sometimes found, as in the small but interesting church of S. Nicola at Girgenti. This was built on a site surrounded by Greek and Roman remains, and the exterior, though containing a Gothic doorway, is crowned by a Classic cornice, while the interior consists merely of a single hall, with a corresponding cornice from which rises a pointed barrel-vault in four compartments carried on transverse arch ribs.

RONALD P. JONES.



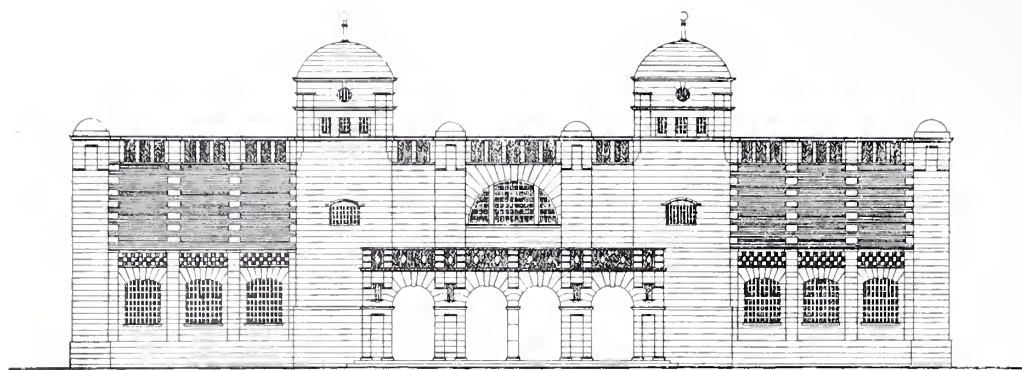
"WHITE WEBBS," HADLEY WOOD.

J. LEONARD WILLIAMS, ARCHITECT.

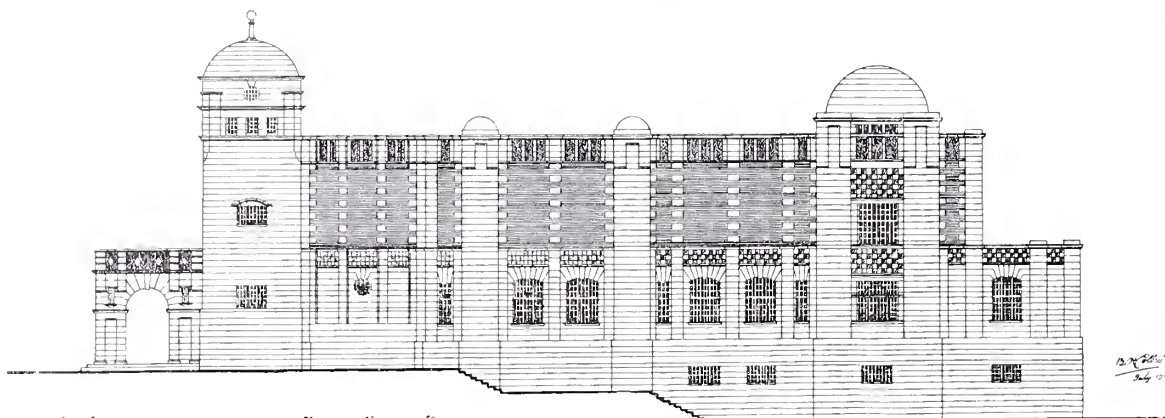




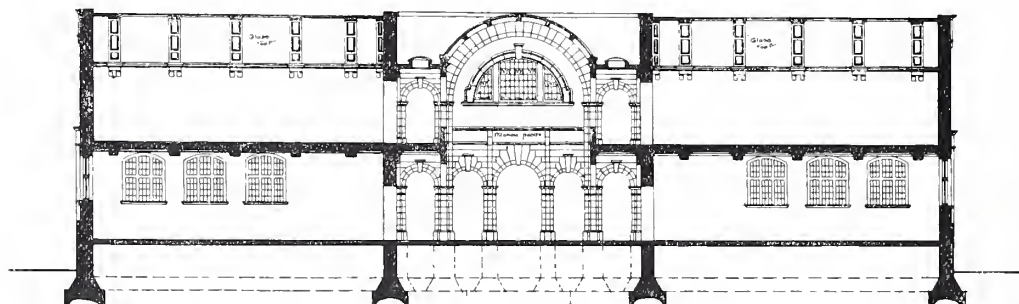




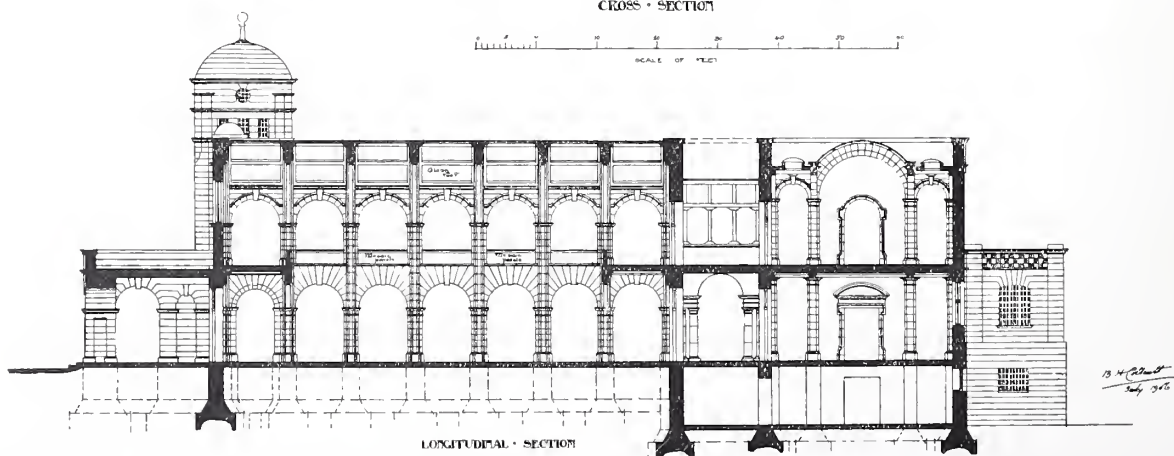
FRONT • ELEVATION



SIDE • ELEVATION



CROSS • SECTION

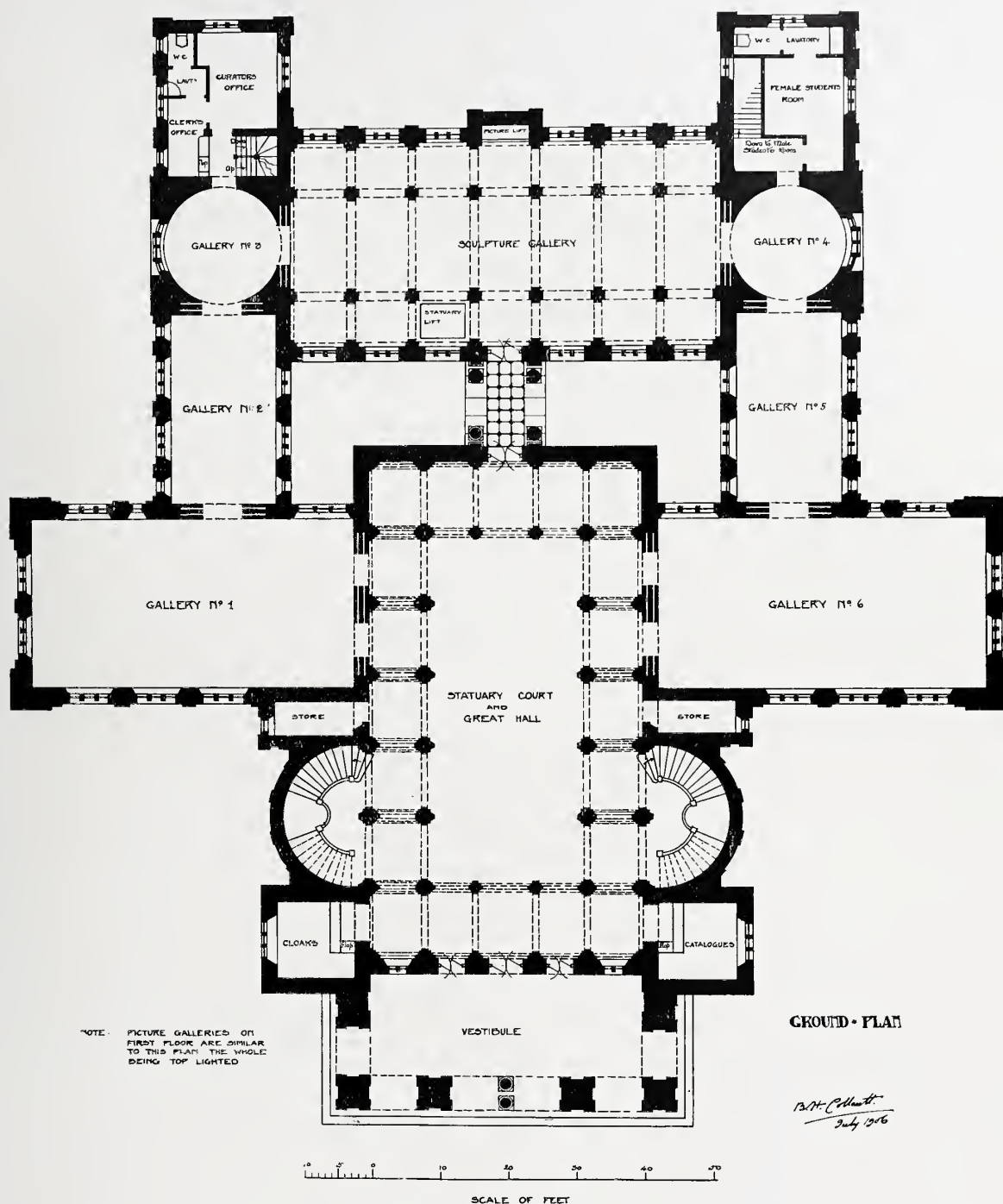


LONGITUDINAL • SECTION

DESIGN FOR MUSEUM AND ART GALLERY.

BY E. H. COLLCUTT.

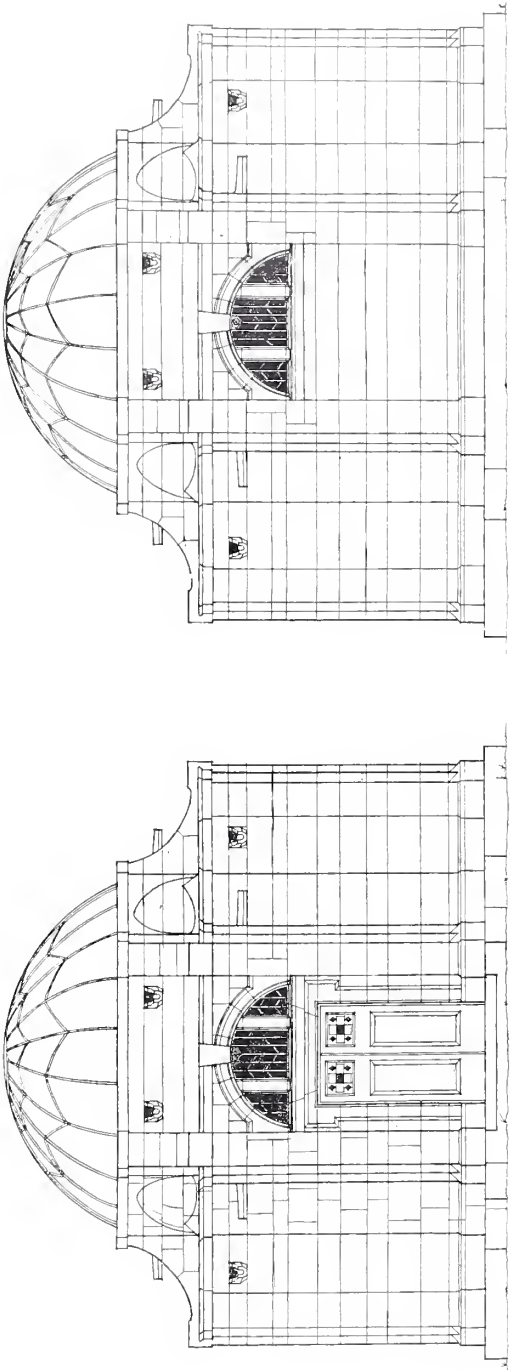




DESIGN FOR MUSEUM AND ART GALLERY.

BY B. H. COLLCUTT.

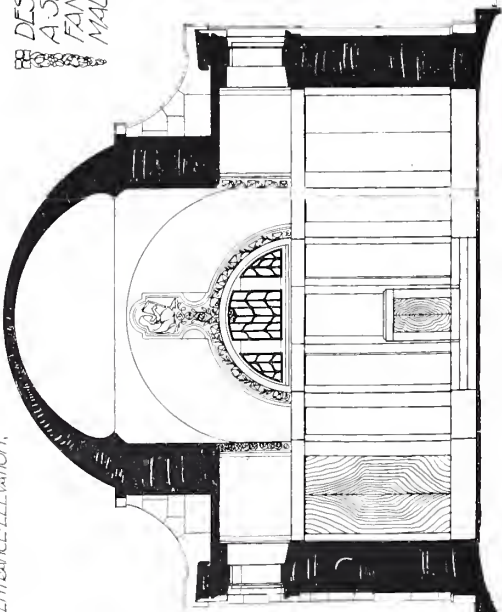
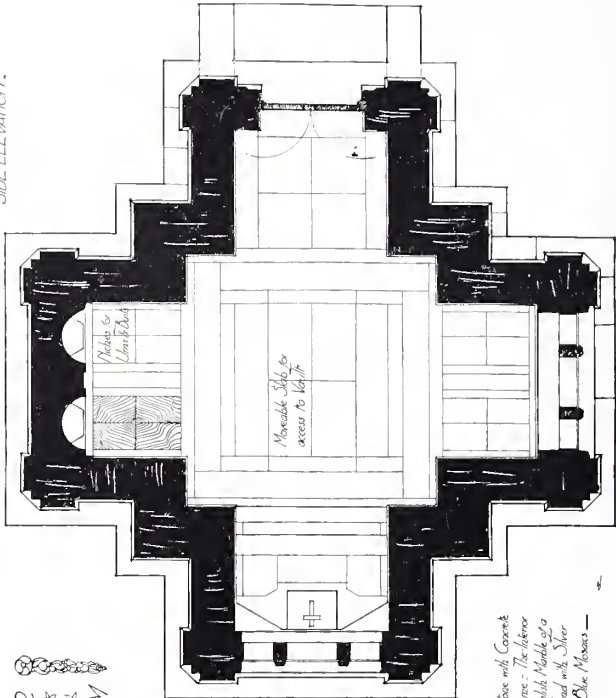




ENTRANCE ELEVATION.

SIDE ELEVATION.

DESIGN FOR  
A SMALL  
FAMILY  
MAUSOLEUM



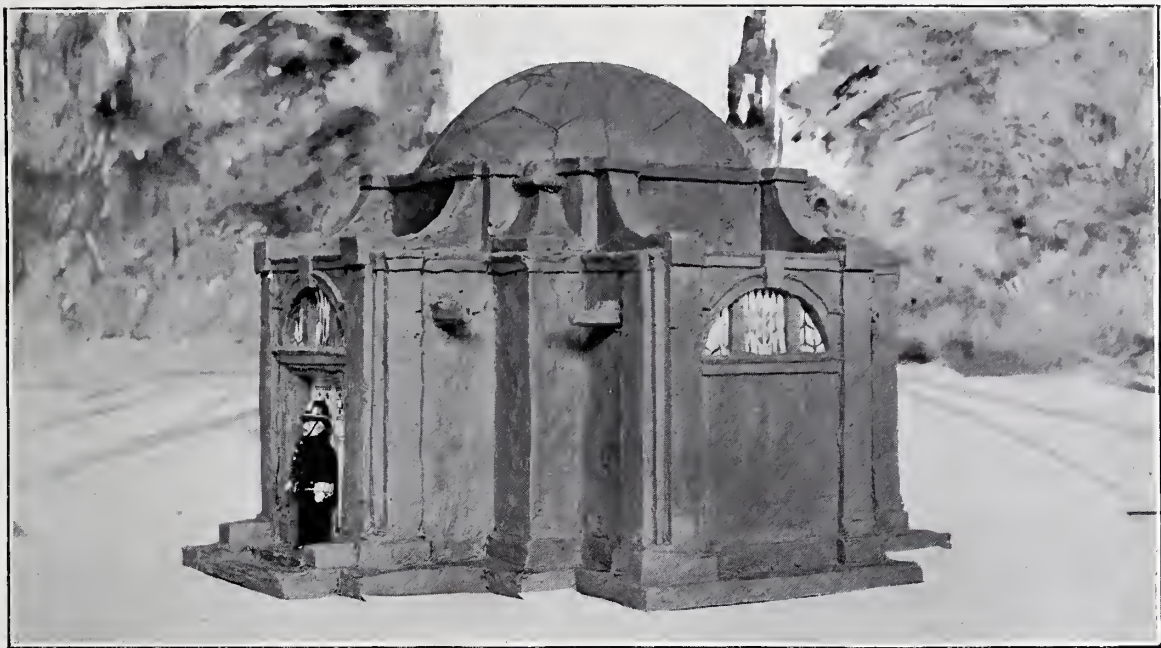
SECTION LOOKING EAST.

8' 0" Duller Stone with Copied  
Vault and Dome. The interior  
lined with English Marble of a  
Green color and with Silver  
and Blue Mosaic —

24 FEET

BY ARTHUR WELFORD.



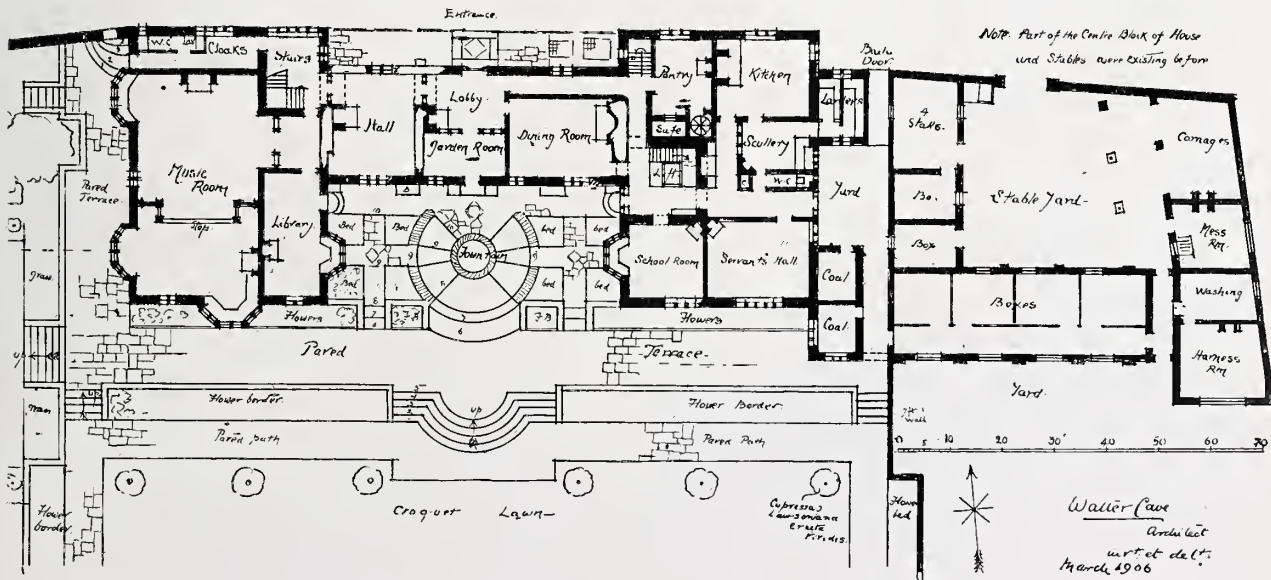


THE A.A. SCHOOL OF ARCHITECTURE. MODEL OF DESIGN FOR SMALL MAUSOLEUM.  
BY ARTHUR WELFORD.

# Current Architecture.

"LITTLE COURT," FARTHINGSTONE, NORTHANTS; WALTER CAVE, ARCHITECT.—The main part of this house is entirely new—the original three-roomed cottage in the centre there remain only the division walls and the north face. The southern three gables with garden door were added by Mr. F. J. Thomas for the former owner about five years ago. The exterior is entirely built of the local stone, which is a warm brown colour, and the mullions, etc. and all worked stone came from Hornton, near Banbury, and are nearly the same colour. The roofs are of Collyweston slates throughout. The terraces and gardens, which have been entirely formed out of sloping ground, have stone retaining-walls and Hornton stone-paved terraces and steps, etc. The large music-room in the west

wing runs up through the two floors and has a gallery at the south end which leads to the private rooms of the owner. The tower contains all the water-tanks and box-rooms. The whole building has been kept low to harmonise with the lines of the old cottage. The stables, which have been somewhat altered, were in existence. A new electric power and light house has been built at the bottom of the garden. Mr. H. Martin, of Northampton, was the general contractor. Mr. George Wragge supplied casements and casement fittings. The electric wiring was executed by Messrs. Blackburn & Starling. Art metal work and electric light fixtures were by Mr. W. Bainbridge Reynolds; and the heating and ventilating were carried out by Messrs. Crittall. Mr. E. Wingfield Bowles was the consulting engineer.



"LITTLE COURT," FARTHINGSTONE, NORTHANTS. PLAN.





"LITTLE COURT," FARTHINGSTONE, NORTHANTS. SOUTH SIDE.  
WALTER CAVE, ARCHITECT.

Photo: S. B. Bolas & Co.





Photo : S. B. Bolus & Co.

"LITTLE COURT," FARTHINGSTONE, NORTHANTS. THE TERRACE.  
WALTER CAVE, ARCHITECT.





*Photo: S. B. Bolas & Co.*

"LITTLE COURT," FARTHINGSTONE, NORTHANTS. THE WEST SIDE.  
WALTER CAVE, ARCHITECT.





Photo: S. B. Dolas & Co.

"LITTLE COURT," FARTHINGSTONE, NORTHANTS. FROM THE SOUTH-EAST.  
WALTER CAVE, ARCHITECT.





Looking towards Drawing-room.

"LITTLE COURT," FARTHINGSTONE, NORTANTS. THE MUSIC-ROOM.  
WALTER CAVE, ARCHITECT.



Looking towards Fireplace.

Photo : S. B. Bolas & Co.





Photo - S. B. Bolas & Co.

Inner Hall Fireplace.



Dining-room Fireplace.

"LITTLE COURT," FARTHINGSTONE, NORTHBANTS.  
WALTER CAVE, ARCHITECT.





The Entrance Hall.



The Drawing-room, looking to Music-room.

*Photo: S. B. Bolas & Co.*

"LITTLE COURT," FARTHINGSTONE, NORTHANIS. WALTER CAVE, ARCHITECT.



# A Sketch of Irish Ecclesiastical Architecture.

## VI.—IRISH ROMANESQUE.—PART III.

ON the whole, in the arches (which are almost invariably round) something like the ordinary Norman character may be said to predominate, and Irish characteristics<sup>63</sup> in the shape and ornamentation of 'block-capitals' (or those fragments of entablature which often take the place of the regular capitals) and on the jambs below. But this is by no means without exception—thus the shafts and the columns in the doorways at Aghadoe and Clonkeen, with their chevron and bead (mentioned in Part I.), are of an ordinary Norman type (much like two in the clerestory of the nave at Christchurch, Hampshire), while in the doorway supposed to be connected with the tomb of Murtogh O'Brien, in Killaloe Cathedral, there is everywhere decoration of Irish character, chiefly spiral, subordinate to the Norman ornament, on the arch as well as upon the columns (or jambs) below it. And in general Irish Romanesque work is often marked by special richness and delicacy in the ornamentation,<sup>64</sup> which was made possible by their having, in their small churches of simple plan, only small spaces calling for decoration; but at the same time it brings out the artistic qualities of the race that executed the Irish Crosses.

The windows are very few in number, almost all on the east and south sides, round-headed, with a large splay on the inside. Often they are quite plain; sometimes they have on the outside a hood-moulding over them, which in the east window of Our Lady's Church, Glendalough, was ornamented with a simple key-pattern (like that at Christchurch, Dublin, and at St. David's). The east window of St. Saviour's, a mile or so distant, is, on the outside, recessed under a decorated arch supported by shafts, and in the oratory known as 'the Priests' House,' also at Glendalough, an arch, elaborately ornamented, enclosing the little east window, also acts as canopy to a seat underneath. The circular window at Rahan, already mentioned, has a quatrefoil opening within; at St. Saviour's Church, as well as in *Teampull-na-Skellig*, also at Glendalough (not to mention other examples), the east window is of two lights, cut out of flat stones; all these are strikingly like the beginnings of plate tracery. As to inside decoration, the east window of the cathedral at Glendalough is

ornamented with a chevron pattern on the splay<sup>65</sup>; at St. Saviour's there is, under a hood-moulding, elaborate ornamentation, extending on to the splay, as is also the case at Tomgraney.<sup>66</sup> At *Teampull-na-Hoe*, Ardfer, a window is enclosed with a border of flowers and other decoration in low relief, outside the splay. At Annadown the triangles formed by a raised chevron joining on to a round rib which runs along the edge of the splay are filled up with most delicate carving of leaves and of monsters' heads and necks interlacing, as in an Irish MS. Those windows which are, so to speak, framed in a moulding, which is continued below them, as at Inismain, O'Melaghlin's Church (Clonmacnoise), and elsewhere, appear to be rather of Transition character.

The elaborate arcading of Cormac's Chapel has been already mentioned. At Kilmalkedar the nave is panelled with half-columns and entablature in a most effective way, recalling classical examples (such as the Colosseum, the Porta Nigra at Trèves, and various tombs at Petra and in Palestine), or later imitations of these, such as the Palazzo delle Torre, Turin, or the apse of St. Sernin at Toulouse. The round-headed windows are excellently worked into the scheme.

The old form of finial, such as we saw it at Templemanaghan and *Tober-na-Dru*, was not yet extinct; there is an elaborately-carved specimen on the floor of the church at Kilmalkedar, which no doubt came from the west gable; a smaller specimen—of uncertain date—is fastened up in St. Caimin's Church.

Of figure-sculpture there is a considerable amount. The heads on columns have been already mentioned, and there are many good ones on or above arches in Cormac's Chapel and above the doorway at Disert O Dea (Co. Clare) and at Clonfert; there are also full-length figures, as on the doorway at Freshford, besides carvings of animals, real or imaginary.<sup>67</sup> But a more ambitious attempt is to be found on the west front of Ardmore Cathedral, where, in round-headed pannels, some of which are grouped under larger round-headed arches, a number of scenes are carved in low relief, among which the Visit of the Magi, the Judgment of Solomon, and the Fall—the last-named represented in the usual form—are still fairly easy to make out. The details of this

<sup>63</sup> Including decoration not found in that form outside Ireland; thus, besides distinctively Irish ornament, the chevron is used in peculiar ways on columns or pilasters.

<sup>64</sup> There is some late Norman or Transition work in England, as at Hales, Norfolk, and Nun Monkton, Yorkshire, which shows similar delicate elaboration, though it does not, of course, use the distinctive Irish patterns.

<sup>65</sup> There was also further decoration, now lost. See Petrie, *Ecclesiastical Architecture of Ireland*, p. 254.

<sup>66</sup> Some of the windows in the chancel at Tomgraney have obviously (at some time) been repaired with older materials—the stones do not fit. The north window is perfect. There are fragments of billet-mouldings in the church and churchyard for which apparently no use could be found.

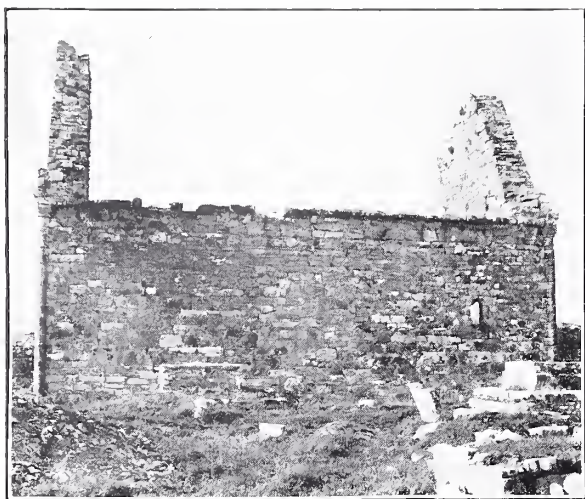
At Glendalough much of the work had fallen and has been set

up again in recent years, as nearly as possible in its old place, about which, in the small Irish churches, there can, as a rule, be no mistake. As regards 'the Priests' House' there were drawings, made in 1778, to guide the work. Irish restoration of such ruins seldom involves carving stones; where necessary ones have been lost, they are inserted plain. I have tried throughout these articles, as far as possible (by consulting old pictures and in other ways), to see that nothing is cited which is due to 'restoration.'

<sup>67</sup> Sometimes heads of animals or monsters are grotesquely truncated, as is the case on the tympanum inside the doorway at Kilmalkedar, also upon the ends of the label to the doorways of the smaller church at Rahan, and at Clonkeen, and in the same position on the doorway and chancel arch of the Nuns' Church, Clonmacnoise.



church are mainly of Transition Architecture, but there is a possibility that these carvings belonged to a somewhat older church which has been more or less rebuilt—the arches do not seem made for the west wall, as it stands at present. The figure-sculpture is in many cases much ruined, but it often shows a decided advance on that upon the Crosses, while the other carving is frequently admirable; the doorway at Clonfert is perhaps the most excellent specimen of all, both in the carving of heads and in its ornamentation. It will be noticed that the pediment is edged with a cable-moulding, like some of the High Crosses, and that the



TEAMPULL-NA-HOE. GENERAL VIEW.

tops of the lower shafts are of distinctly Irish character, as is also the interlaced and spiral surface-decoration, while some of the capitals in the arcade above, and possibly the twisted columns below, mark a debt to Norman Architecture—the innermost part of the door-



OUR LADY'S CHURCH, GLENDALOUGH.



WINDOW ON NORTH SIDE OF CHANCEL, TOMGRANEY.

way (just round the door) belongs, of course, to a much later date.

The decoration of the west fronts is usually confined to the doorway, often flanked by *antæ* at the corners of the building. But, besides the work at Ardmore, mentioned above (where the doorway is near the west end of the nave's north wall), at Ardfert Cathedral the west front has arcading all across it at the bottom, the doorway forming part of



WINDOW IN NAVE, TEAMPULL-NA-HOE, ARDFERT.





KILMALKEDAR: PANELLING.

the design, which now has a broken and unsymmetrical appearance, probably owing to the north wall of the nave having been rebuilt in a different position. At Roscrea there is a somewhat similar but more elaborate design, with door and arcading surmounted by peditments, and *antæ* moulded at their corners.

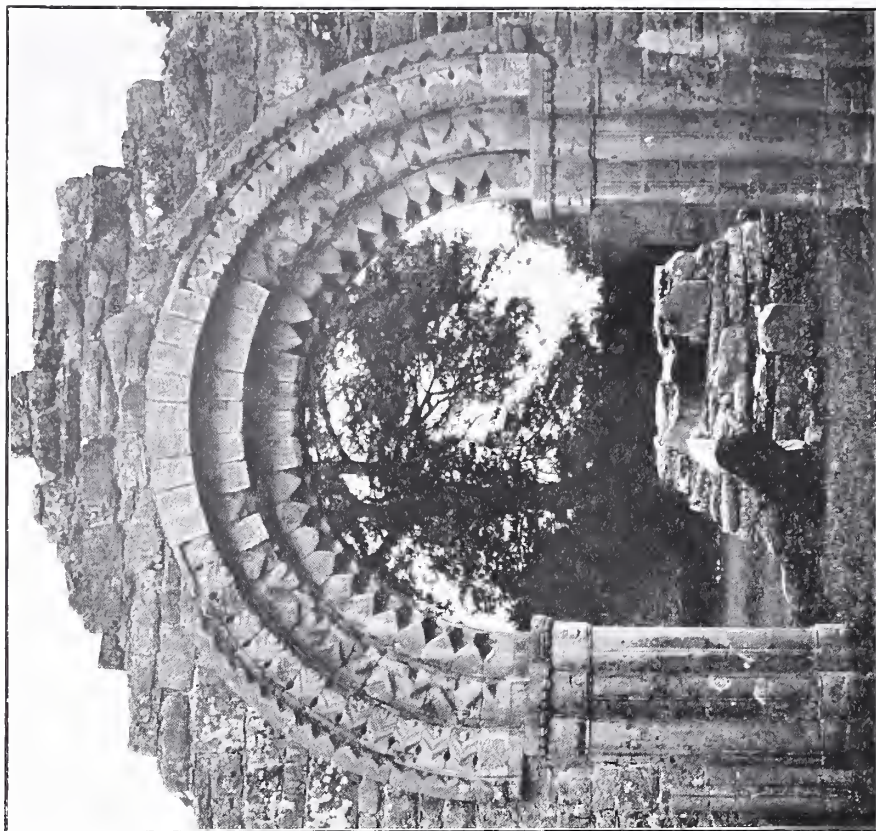
At Jerpoint Abbey, founded in 1180, a great change is visible. Not only are pointed arches a prominent feature, but the old, simple Irish church is discarded for a cruciform plan, with two chapels to the east of each transept, according to the usual Cistercian

arrangement. The eastern part appears to have been, as usual, the first to be built. Here there are still strong Irish characteristics—the round chancel vault, leaving room for an upper storey (there are also rooms over the transept chapels); the heads of piers variously decorated with carving, to some of which it would be hard to find a parallel, while some seem rather to be inspired by other Norman decorative work than by anything recognised as a capital in that style of architecture; the ornament upon one of those illustrated (on the eastern respond at the north side of the nave) is some-

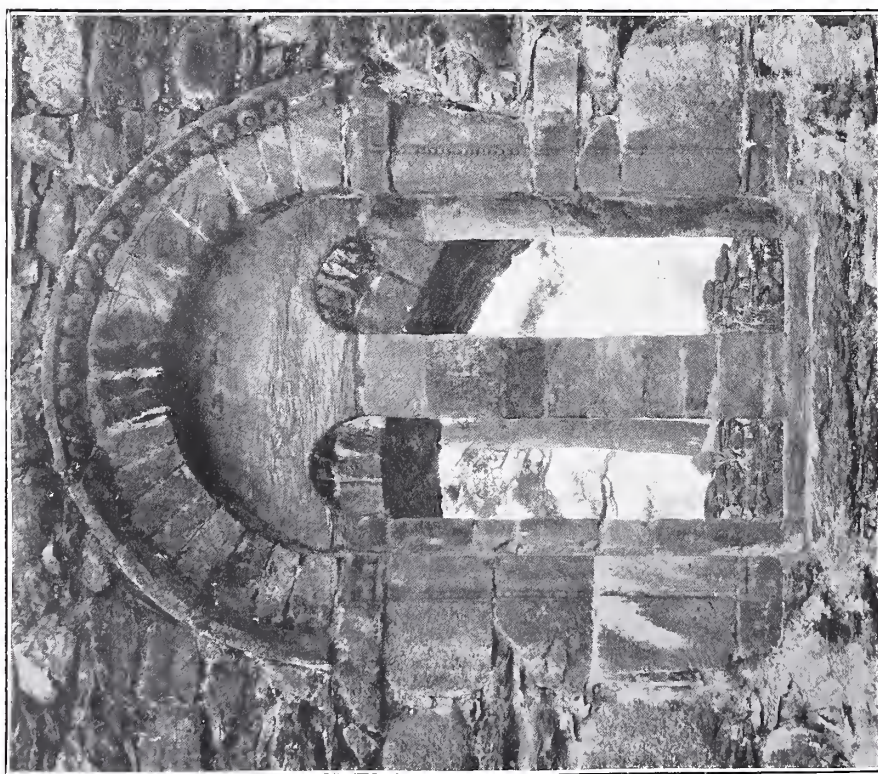


ARDIERT: WEST FRONT.





CHANCEL ARCH, NUNS' CHURCH, CLONMACNOISE (FROM WEST).



EXTERIOR VIEW OF EAST WINDOW, ST. SAVIOUR'S, GLENDALOUGH.





JERPOINT ABBEY. INTERIOR OF THE NAVF.

thing like carving on the outside of an arch in the Tower of St. Peter's, Northampton. The sedilia, though bordered with 'interrupted zigzag,' have a very unusual appearance. As we proceed westwards the building merges into something much more like

ordinary Norman Architecture. The tower and its supports are, of course, much later in date; "towers of stone for bells" were expressly forbidden by the Cistercian Statutes "as unbecoming to the simplicity of the order"<sup>68</sup>; later on the prohibition was disregarded.



JERPOINT ABBEY.

<sup>68</sup> That the monastery was meant from the first to be capable of defence seems likely from the facts that there is only one entrance to the church except from the conventual buildings, and that the old windows are few and high up. But the special fortification may have been added later.





ARDMORE ; WEST FRONT.



CHANCEL OF CATHEDRAL, GLENDALOUGH (LOOKING NORTH-EAST).

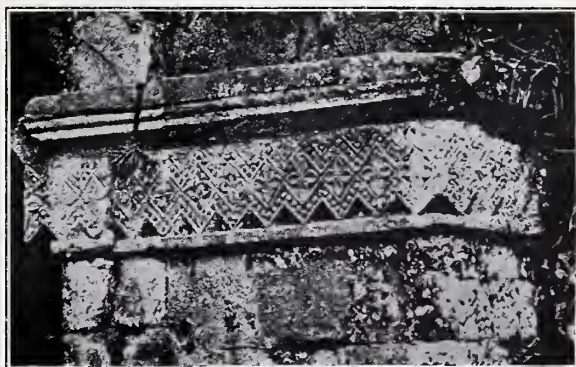




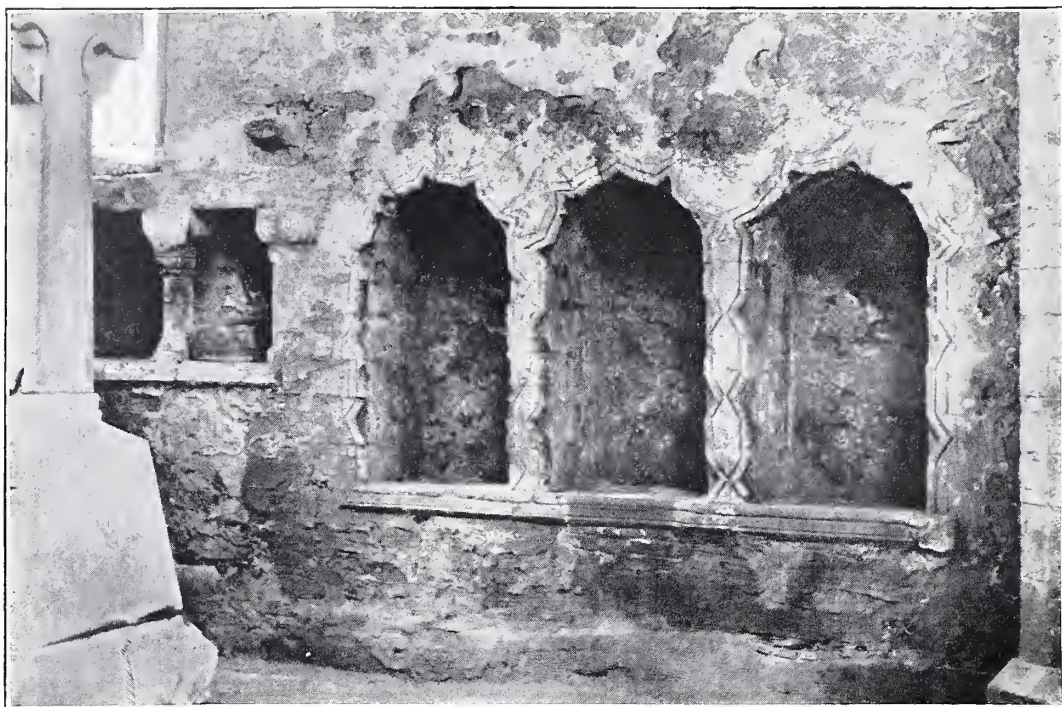
DOORWAY, FRESHFORD.  
CHANCEL ARCH, RAHAN.



CHANCEL ARCH AND FINIAL, KILMALKEDAR.  
WINDOW, ST. SAVIOUR'S, GLENDALOUGH.  
CAPITAL, JERPOINT ABBEY.







NAVE ARCADE, JERPOINT ABBEY.

NAVE ARCADE, STRATA FLORIDA.

CAPITALS, JERPOINT ABBEY.

SEDILIA, JERPOINT ABBEY.

CAPITALS, JERPOINT ABBEY.



The chancel has a square east end, and so have the two pairs of transept chapels, each of which is (according to the custom of Cistercian churches) completely built off from its neighbour. At Mellifont, the earliest Irish abbey of the Order, founded in 1142 through the influence of St. Malachy, and built under the direction of a continental architect, or architects, four out of six of these chapels appear, in the original building, to have ended in semi-circular apses. But the fact that the churches at Cîteaux itself and at Vaux-de-Sernay and Fontenay, among early Cistercian abbeys, had square-ended chancels, while the last-named had rectangular transept chapels as well,<sup>69</sup> must have helped the square east end, traditional in Ireland, to maintain itself at the time when it would otherwise have run the greatest risk of alteration. The type of cloister that carries—or is capable of carrying—a storey above it (which is practical, as saving space, and unpretentious, and is perhaps of southern origin) appears to have been common in early monasteries of that Order,<sup>70</sup> and this may probably be the reason why it became, as we shall see later on, an Irish tradition.

The middle of the nave at Jerpoint was crossed by a stone screen, the 'ritual choir' being thus enlarged, and the aisles were shut off by walls built up between the pillars. This is usual in Cistercian churches; but

to the west of the screen there is a special resemblance between this Irish church and that of Strata Florida in Cardiganshire (a Cistercian monastery founded in 1164 or in 1180), the pillars here being short, raised some few feet from the ground, and standing apparently above a low wall which shut off this part of the aisles.<sup>71</sup> Further signs of the connection between Ireland and south-west Wales will be noticed in the next article.

The invasion of Ireland by the English began in 1169. But it may well be doubted whether this did not merely strengthen the foreign influences which already worked upon Irish Architecture—fixing English forms as the main types to be copied—and hasten a change which was being made inevitable by travel, commerce, ecclesiastical connection, and especially by the introduction of monasteries belonging to a foreign Order, which, however much it might study simplicity, had larger ambitions in building than those which had hitherto prevailed in Ireland.

ARTHUR C. CHAMPNEYS.

(To be continued.)

[The majority of the photographs were taken by the author, and printed by Messrs. Seaman, of Ilkeston.]

<sup>69</sup> See Viollet-le-Duc, *Dictionnaire de l'Architecture*, Vol. I., p. 272, etc.

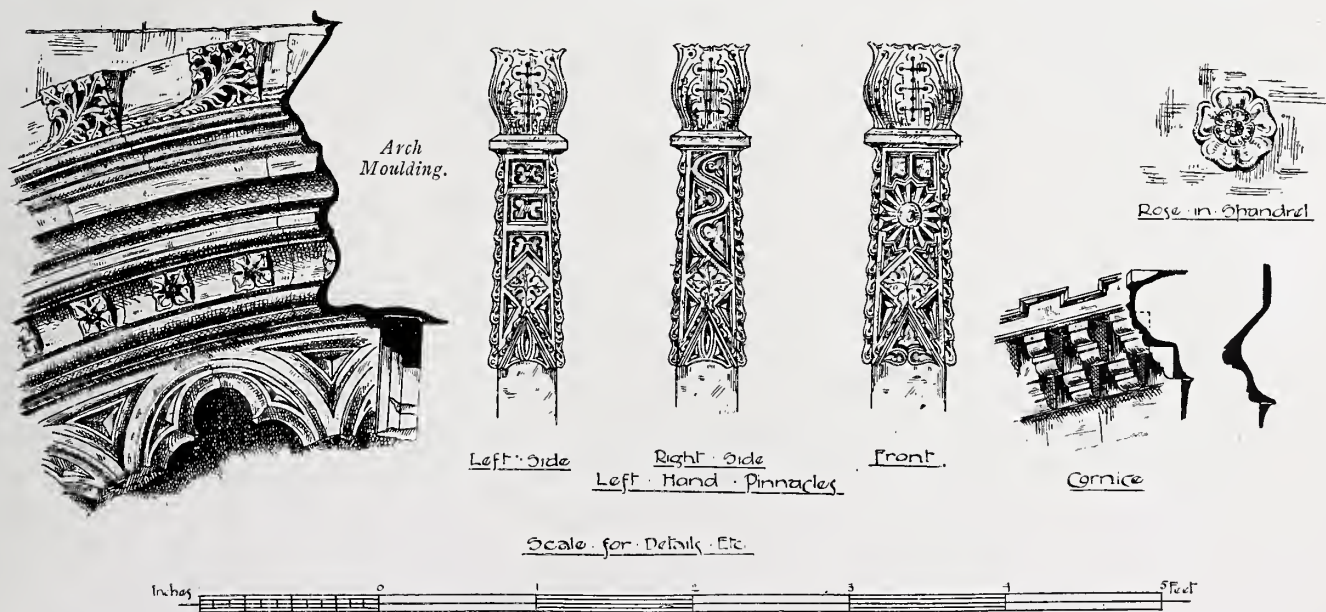
<sup>70</sup> *Ibid.*, Vol. III., p. 419, etc. But the Priory of Austin Canons at Bridlington also has something very similar, of late Norman date, and the cloisters at Cong, near Lough Corrib, of Transition Architecture, belonged to a monastery of the same Order.

Probably many of the earliest cloisters, as well as other domestic buildings, were of wood, for which stone was afterwards substituted.

<sup>71</sup> In the south aisle at Jerpoint the pillars are gone, but the signs of the wall are very distinct; they are not now so plain upon the north side, where the pillars remain.

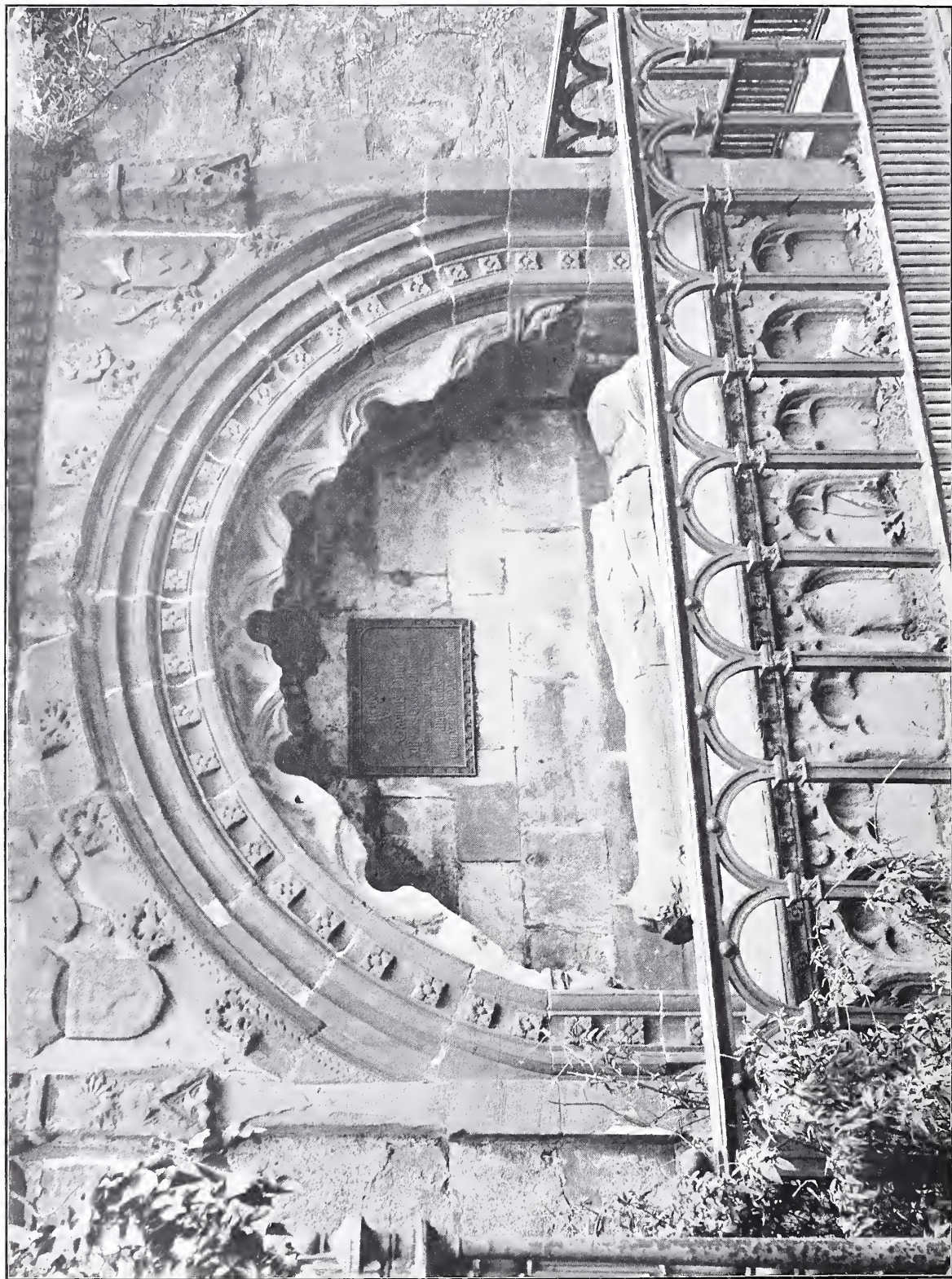
# The Practical Exemplar of Architecture.

## VIII.—Gothic Canopies.



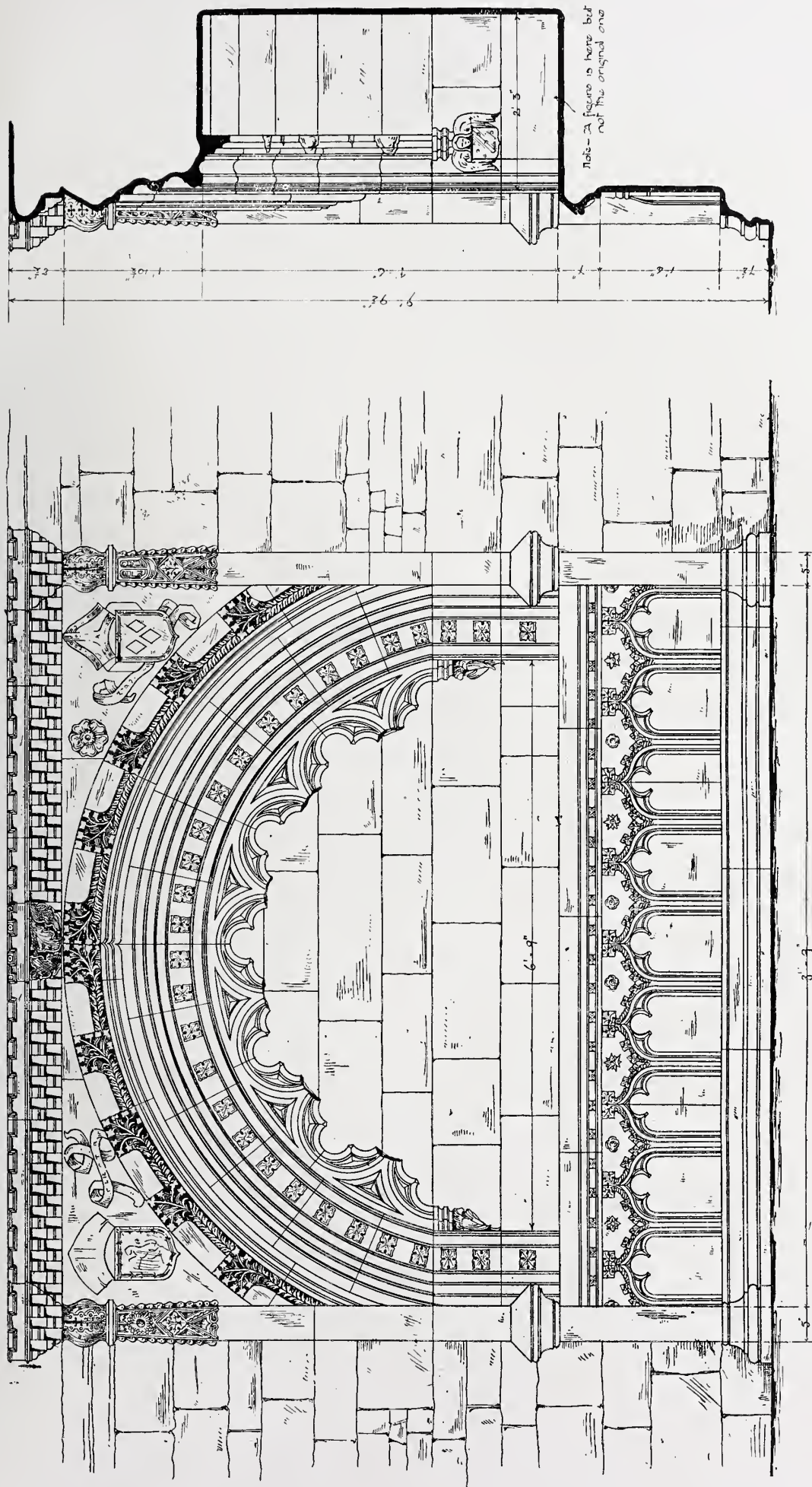
DETAILS OF CANOPY OVER THE TOMB OF BISHOP GAVIN DUNBAR, ST. MACHAR'S CATHEDRAL, ABERDEEN.  
MEASURED AND DRAWN BY R. J. JOHNSTON.



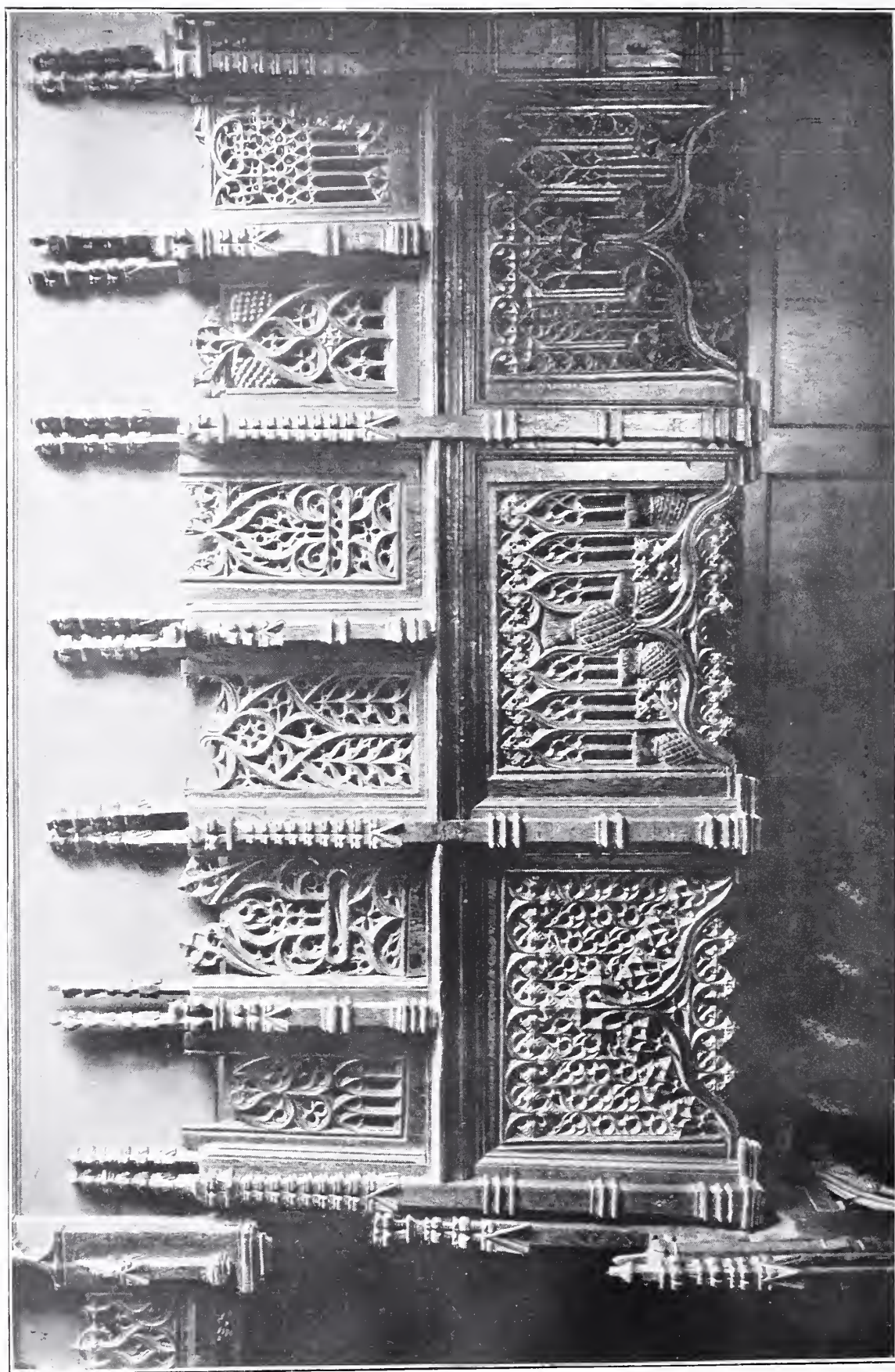


CANOPY OVER TOMB OF BISHOP GAVIN DUNBAR IN WALL OF SOUTH TRANSEPT,  
ST. MACHAR'S CATHEDRAL, ABERDEEN.



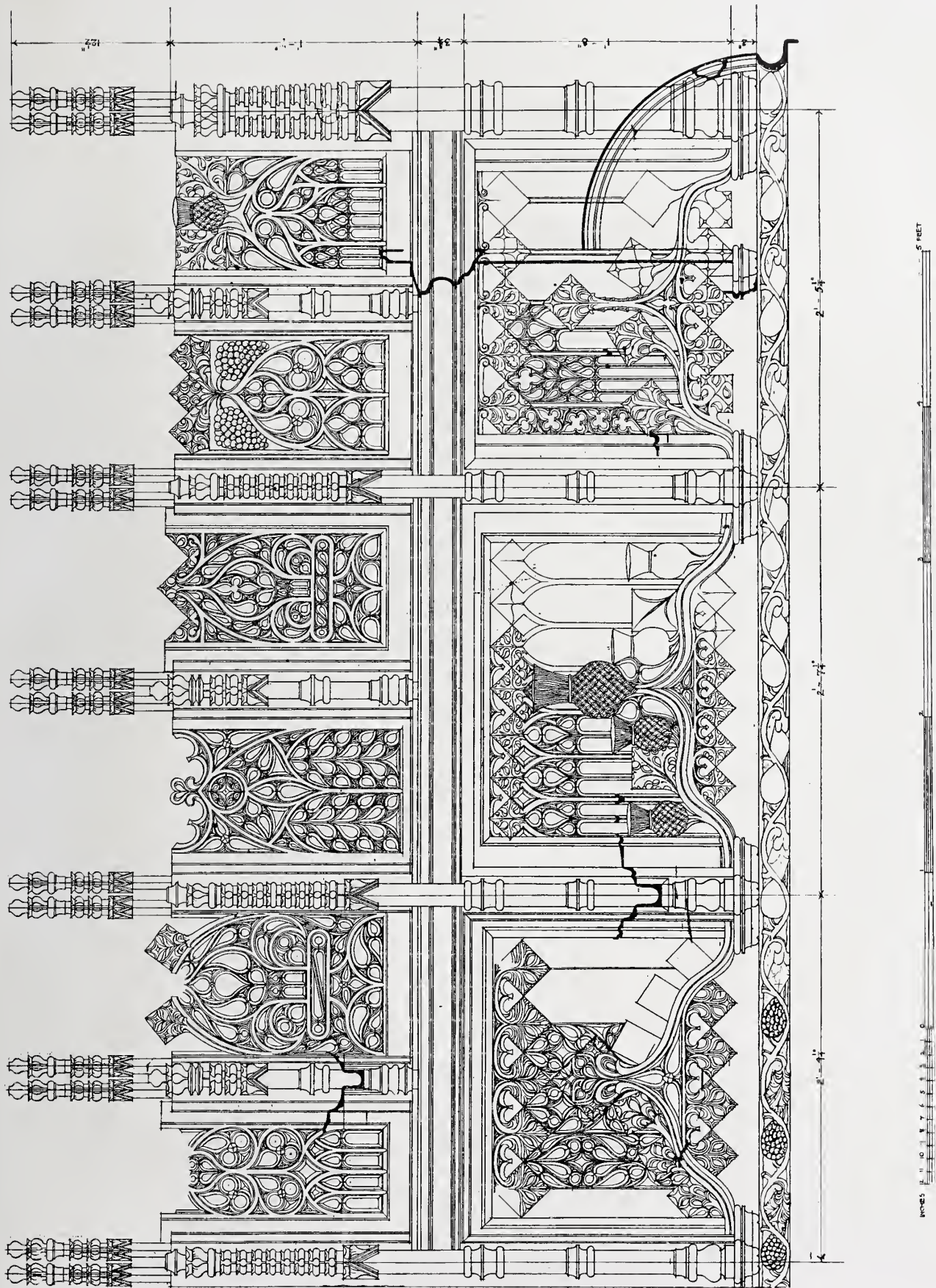






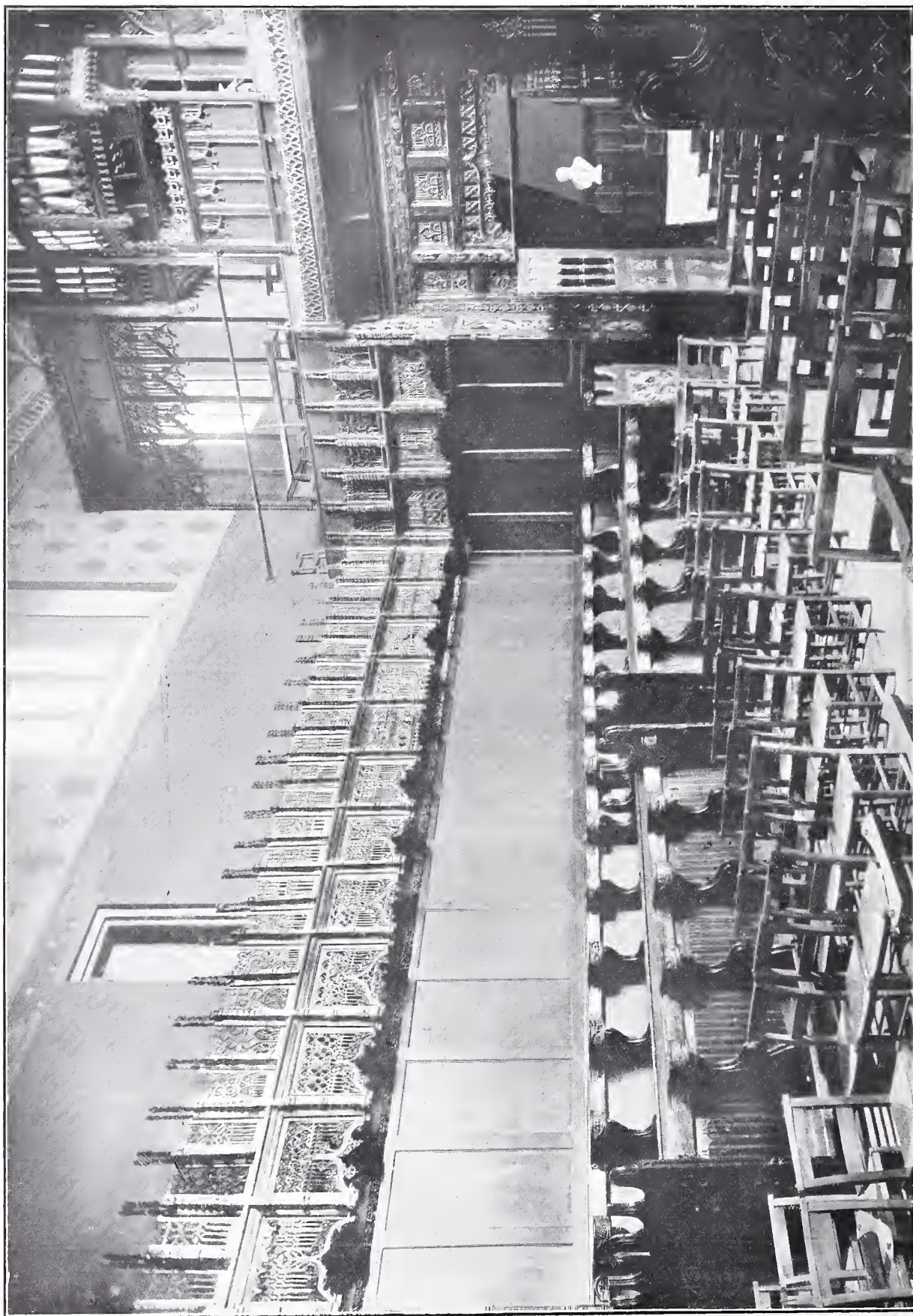
PART OF WOODEN CANOPY OVER STALLS, CHAPEL OF KING'S COLLEGE, OLD ABERDEEN.





PART OF CANOPY OVER STALLS, CHAPEL OF KING'S COLLEGE, OLD ABERDEEN.  
MEASURED AND DRAWN BY R. J. JOHNSTON.





GENERAL VIEW OF CANOPY OVER STALLS,  
CHAPEL OF KING'S COLLEGE, OLD ABERDEEN.



# THE NEW WAR OFFICE.

The late William Young, F.R.I.B.A., Architect.

*Completed under the supervision of*

Clyde Young and Sir John Taylor, K.C.B.

IN 1898 the late William Young was commissioned by H.M. Office of Works to prepare sketches for the New War Office building, to be erected on what was known as the Carrington House site, facing the Horse Guards, and comprising the whole block bounded by Whitehall on the west, Whitehall Place on the north, Whitehall Avenue on the south, and Horse Guards Avenue on the east.

My father's first thought on receiving the commission was, very naturally, of the style to be adopted for the new building; and the position of the site, in close proximity to numerous Government offices, the Horse Guards, and Inigo Jones's masterpiece, quickly decided him upon a Classic treatment. The question whether that treatment should be free or orthodox was a problem more difficult to solve.

The influence of the Banqueting House was, however, too great to be resisted, and he decided on the more difficult and courageous course (one, too, more likely to provoke criticism) of trying to produce a design which would harmonise with its beautiful neighbour, and at the same time provide the necessary accommodation for the large staff of the War Department. The dimensions of the order, the level of the cornice, and the height of the building (80 ft.) were accordingly made to line with the Banqueting House as nearly as the internal arrangements would permit.

The general plan may be described as that of a single annular corridor with rooms on the outer sides looking on to the four streets, and having cross corridors running north and south, affording easy and direct communication between the departments and giving access to various rooms overlooking the quadrangle and the large light area on the east side which takes up the awkward triangular portion of the ground.

The site is an irregular one—to be accurate, a trapezium, all the four frontages being of unequal length.

The principal front to Whitehall is 250 ft. long; that to the Horse Guards Avenue is 320 ft. long;

the east front to Whitehall Avenue is 370 ft. long; and the Whitehall Place frontage is 500 ft. long.

To mask the irregularity at the angles a circular tower has been introduced at each corner, supported in each case by a square pavilion which takes up the line of frontage on the street it faces.

The groups of sculpture at the angles of the building are the work of Alfred Drury, A.R.A., who was a pupil of Dalou. They represent Peace; War; Truth and Justice; Fame and Victory.

The foundations were commenced in 1899 and completed in March 1901, the entire site being excavated and a huge tank of concrete formed in which the buildings were to stand. The bottom of this tank is 6 ft. thick. The sides vary from 7 ft. to 3 ft. thick, and it would hold about thirteen million gallons of water. The depth is 30 ft. below the roadway. For the concrete and other work on the building some 20,000 tons of cement were supplied by the Associated Portland Cement Manufacturers, Ltd. The foundation work was carried out by J. Mowlem & Co., Ltd. During its progress the plans and working drawings were got ready and completed in the autumn of 1900. To the general regret my father died in November of that year before a brick of the superstructure had been laid, and I was subsequently appointed by the Government to carry out the works in conjunction with Sir John Taylor, K.C.B., of H.M. Office of Works.

As far as possible British materials only were utilised in the building. The first brick was laid in September 1901, and the building completed in November 1906, well within the contract time, and great credit is due to the contractors, Foster & Dicksee, for the manner in which the contract has been carried out; so far as workmanship is concerned it is without reproach, and is one of the finest examples of modern masonry in London. The whole of the stone came from the quarries at Portland owned by the Bath Stone Firms, and was specially selected by a Government Inspector at Portland before





DETAIL OF WHITEHALL ENTRANCE.

*Photo: S. B. Bolas & Co.*

being sent to London, where it was worked at the Contractors' yard at Chelsea. For this purpose the most up-to-date machinery was erected, including diamond moulding machines and electric cranes, which enabled the largest blocks of stone to be picked up from any position in the yard and placed on the motor lorries for conveyance to Whitehall in a few minutes.

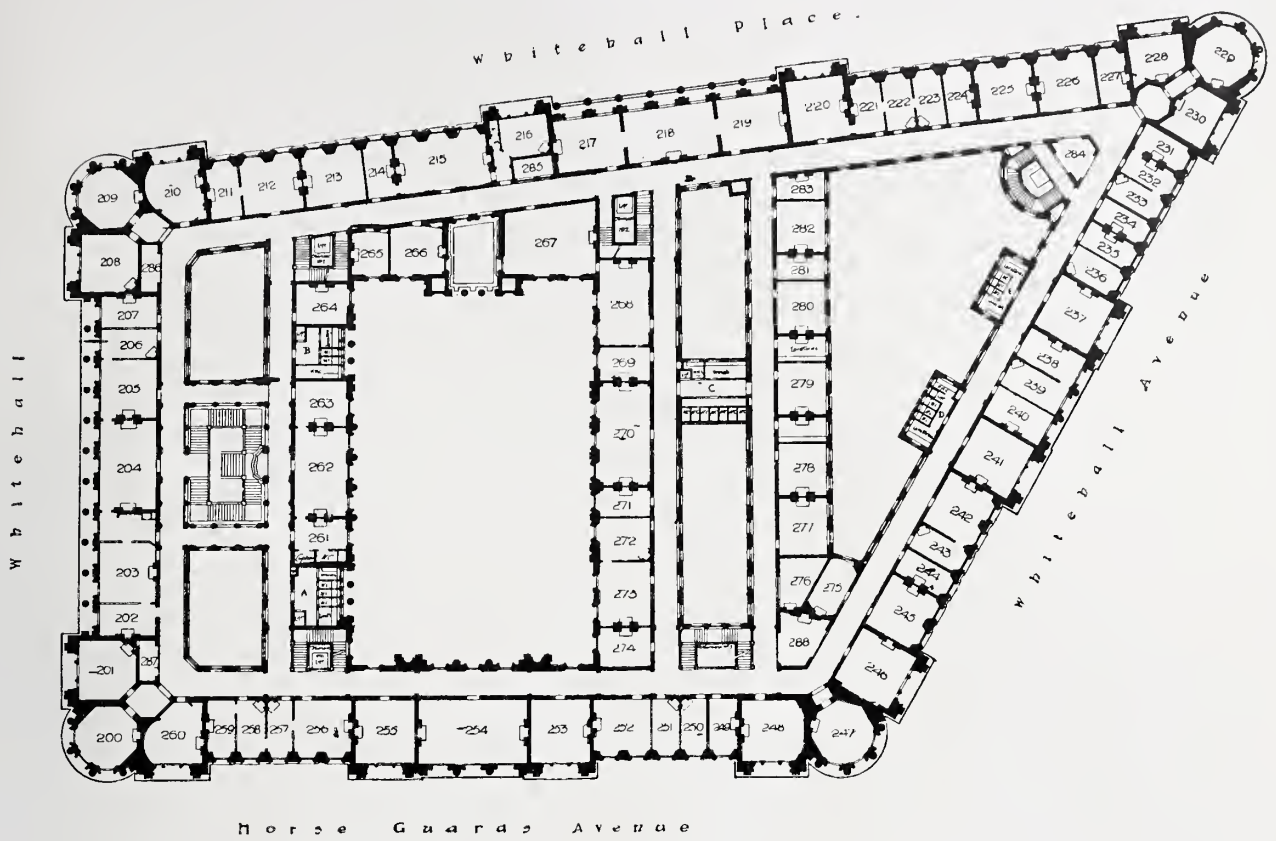
One of the chief external features is a handsome loggia, with Roman Doric columns supporting a stone vaulted ceiling, under which carriage access is obtained from Horse Guards Avenue to the quadrangle. The four façades of this quadrangle are in stone, treated to correspond with the external design. The lamp standards were supplied by the Coalbrookdale Co., and the paving here and surrounding the building, as well as the floors of lavatories, boiler-room, and basement are carried out in Hard York "Nonslip" stone. From the quadrangle access is obtained through an oak-panelled hall and the corridor under the grand staircase to the outer hall which has its main entrance from Whitehall.

The internal light wells are faced entirely with white glazed bricks supplied by Brookes, Ltd., of Halifax.

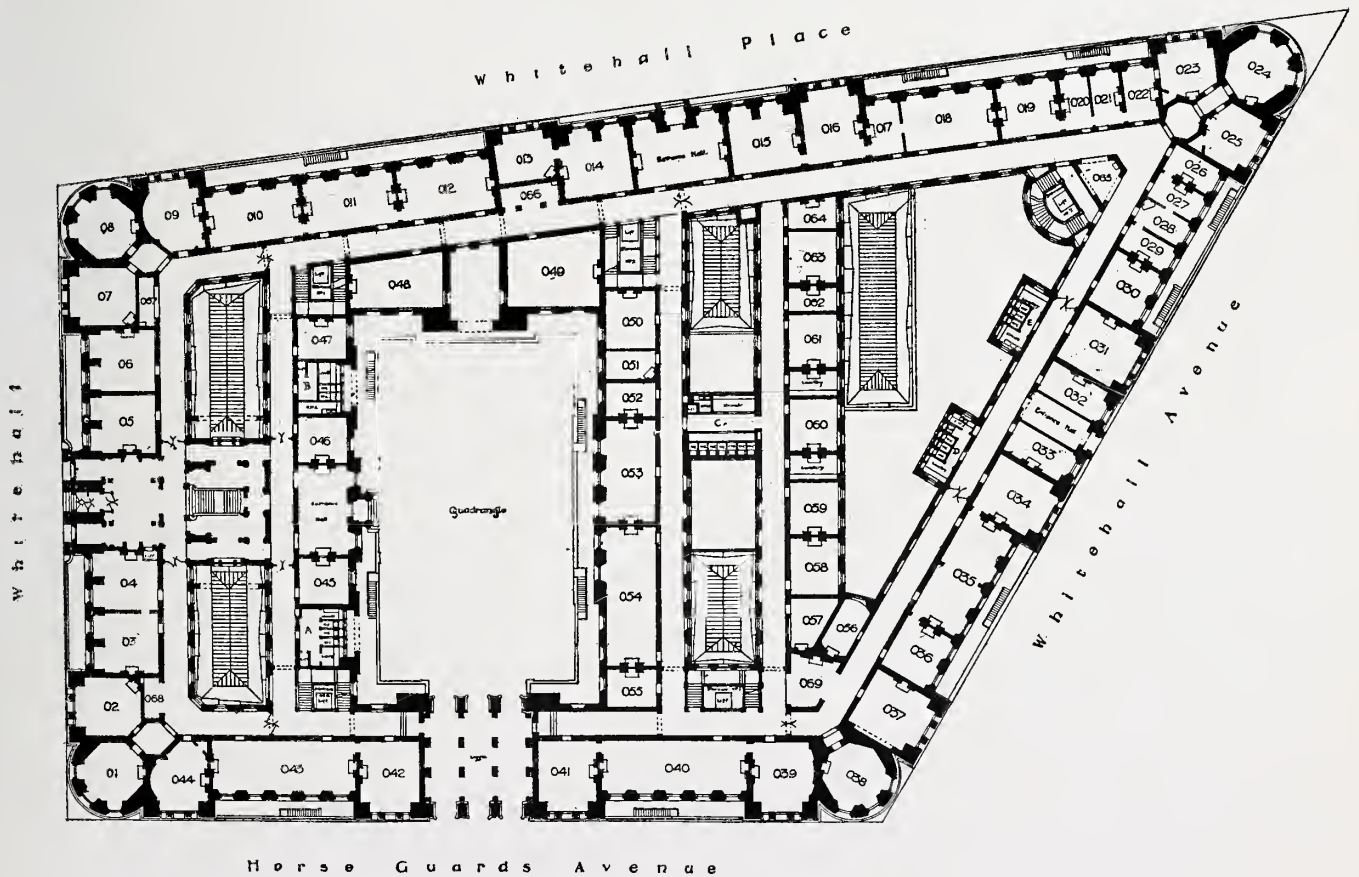
The main doorway gives access to the entrance hall, two stories high, with Portland stone columns and groined ceiling. Beyond this hall is the grand staircase. The stairs start with a central flight, turn right and left, then return and land immediately above the start, the last flight being carried on a large segmental bridge spanning the whole width of the staircase. The corridor of the mezzanine floor is schemed to cross between the staircase and entrance hall, but is entirely disconnected from them.

The walls of the staircase are of Painswick stone with plain broad surfaces from ground to first floor; at the first-floor level an arcade runs round the wellhole with Corinthian pilasters in Painswick stone, and alabaster imposts to the arches; the balusters are also alabaster with Brescia capping, and Piastraccia steps, while at the foot of the stair are two handsome Brescia columns. The paving of staircase and entrance hall is carried out in black and Piastraccia marbles. The whole of the marble work, as well as the internal wood and stone carving, was executed by Farmer & Brindley of London. This firm also removed thirteen chimney-pieces from the old War Office, cleaning, restoring, and refixing them in the new buildings,





SECOND OR PRINCIPAL FLOOR PLAN.



GROUND-FLOOR PLAN.





*Photo: S. B. Bolas & Co.*





*Photo : A. P. Monger.*

VIEW FROM THE SOUTH-EAST.



*Photo: A. P. Monger.*

A CORNER OF THE QUADRANGLE.

and adding the missing parts. At night the staircase is lighted by concealed lights behind the cornice and from bronze lanterns hanging in the corridors.

In addition to the main staircase there are five other staircases for general use; these are exe-

cuted in Portland stone with Silex stone steps and landings supplied by Joseph Brooke & Sons, Halifax (branch of Brookes, Ltd.) In the well of each of them is an electric passenger lift, by R. Waygood & Co., Ltd.





DETAIL OF LAMP STANDARDS  
IN THE QUADRANGLE.

On the principal floor only has any special treatment been given, and there the rooms allotted to the Secretary of State, Permanent Secretary, Adjutant-General, Chief of the General Staff, council room and committee rooms, are panelled in wainscot oak the whole height, and with enriched ceilings in fibrous plaster; the other rooms for heads of departments have simple panelled dados 4 ft. high. The main corridor approaching these apartments is lined with panelled oak dados.

In these rooms have been refixed the valuable old marble chimney-pieces which were removed from the old War Office. In these rooms too the electroliers are replicas of old chandeliers at Hampton Court.

The grates and chimney-pieces, other than those brought from the old War Office, were executed from my designs by Yates, Haywood & Co., the chimney-pieces being of their Lavande and Gris-rouge marbles. The iron balustrades to the staircases were also made by this firm from special designs.

The remaining rooms have been treated in the plainest possible manner, and are simply work-rooms where every attention has been given to light and air, and to the comfort of the staff who are to use them.

The woodwork of the windows throughout is of teak, glazed with plate-glass specially selected and ground. A large number of the lights and partitions are glazed with the new white "Oceanic" glass, and the whole of the glass has been supplied by George Farmiloe & Sons, of West Smithfield. The floors are of fireproof construction, covered with pitch-pine in the ordinary rooms, oak in the principal rooms on the first floor, and with mosaic in the corridors.

As showing the size and extent of the building, some 18,000 square yards of Roman cube mosaic paving has been required, and the work has been carried out by the Art Pavements and Decorations, Ltd.

The roofs are flat, and covered with asphalt upon the concrete.

The ironmongery is of the most substantial description, and was executed by Charles Smith, Sons & Co., Ltd. The locks have bronze fittings and are all *en suite* to a master-key, there being in all about 1,000 locks, each having a different key. Each floor has a separate master-key of its own; but the whole of the locks are controlled by one grand master-key. The door and window fittings are in bronze of heavy, simple, and bold designs. The windows are all hung on the Smith Patent ball-bearing axle pulleys, and though some of the windows are 16 ft. high and weigh nearly 2 cwt., they can be easily opened by a child.

The building is one of big figures, and it is not surprising to find that the plastering work covered an area of 50 acres, all of which was executed by James Annan, including the modelled and enriched ceilings to the principal rooms.

The doors are fitted with spring hinges by Robert Adams. The principal features of these



ONE OF THE NEW FIREPLACES.  
DESIGNED BY CLYDE YOUNG.



springs are that they admit of the door being opened very widely, and they also have an automatic compensating action to obviate slackness from wear. Some of the doors are fitted with the Adams Silent butt springs where it was impossible to use ordinary floor springs.

Provision has been made for a luncheon department, with kitchen and all necessary offices in connexion therewith, capable of providing and serving 1,000 lunches a day.

The sanitary arrangements are of the most up-to-date type, every lavatory being cut off from the main building and separately ventilated.

The electric light installation was carried out by F. A. Glover & Co., the rain-water heads and down pipes were supplied by Macfarlane & Co., while Doulton & Co. supplied the faience and wall tiling.

Under the quadrangle is a large hall with massive piers 25 ft. high, which it is understood will be used as a repository. Also under the quadrangle is the boiler-house with three large boilers, 25 ft. long and 7 ft. diameter, for heating and hot-water service. The heating service has been carried out on the atmospheric system.

A complete system of telephones has been installed throughout the whole building. A feature is the arrangement of the telephone and bell wires, etc., in chases in the corridor floors, etc. The chases are fitted with floor plates and curbing by Thomas Holcroft & Sons, Ltd., and extend to about 19,000 feet run. The same firm has also supplied over 500 fireplace lintels.

A large top-lighted library is provided for the valuable collection of books and manuscripts which the War Office possesses. CLYDE YOUNG.

## THE NEW WAR OFFICE.

The late WILLIAM YOUNG, F.R.I.B.A., Architect.

Completed under the supervision of CLYDE YOUNG and SIR JOHN TAYLOR, K.C.B., Architects

ALFRED DRURY, A.R.A., Sculptor.

WELCH & ATKINSON, Quantity Surveyors.

S. WOODWARD, Clerk of the Works.

JOHN MOWLEM & Co., LTD., Contractors for the Foundations.

FOSTER & DICKSEE, Contractors for the Superstructure.

E. GODDARD, Works Manager.

### A LIST OF SUB-CONTRACTORS.

Bricks—J. C. EDWARDS; BEART & SONS.

Portland Stone—BATH STONE FIRMS.

Cement—ASSOCIATED PORTLAND CEMENT MANUFACTURERS, LTD. (J. B. WHITE'S BRAND).

Glazed Bricks—BROOKES, LTD.

Silex Stone Steps, Landings, Granite Kerbs and Paving—JOSEPH BROOKE & SONS (branch of Brookes, Ltd.).

"Nonslip" Paving and Floors—HARD (York) "NONSLIP" STONE CO.

Faience Work and Wall Tiling—DOULTON & Co.

Asphalt Roofs—LIMMER ASPHALT CO., LTD.

Plaster Work—JAMES ANNAN.

Mosaic Paving—ART PAVEMENTS AND DECORATIONS, LTD.

Partitions—CRANHAM BRICK CO.

Slating—MATTHEWS & Co.

Floor Chase Covers and Curbs: Cast-iron Fireplace Lintels—THOS. HOLCROFT & SONS, LTD.

Steel Joists and Girders—THE EARL OF DUDLEY'S ROUND OAK IRONWORKS.

Boilers—T. BEELEY & SON, LTD.

Sanitary Plumbing—MATTHEW HALL & Co.

Wood-block Flooring—E. B. BURGESS & Co.

Heating—THE BRIGHTSIDE ENGINEERING CO.

Grates in Principal Rooms—M. FEETHAM & Co.; T. ELSLEY, LTD.

All other Grates and Chimney Pieces—YATES, HAYWOOD & Co.

Electric Cables—SIEMENS BROS. & Co.

Electric Wiring—F. A. GLOVER & Co., LTD.

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Cooking Apparatus—MOORWOOD, SON & Co.

Casements, Lanterns, Domes, etc.—CRITTAL MANUFACTURING CO.

Pavement and Stall Board Lights—HAYWARD BROS. & ECKSTEIN.

Lamp Standards—THE COALBROOKDALE CO.

Rainwater Pipes and Heads—MACFARLANE & Co.

Cast-iron Tanks—GIMSON & SONS.

All Marble work, Interior Stone and Wood-carving, and Reparation of old Chimney-pieces—FARMER & BRINDLEY.

Exterior Carving Work—C. H. MABEY.

Wrought-iron Gates—STARKIE GARDNER & Co.

Bells—COMYN, CHING & Co.

Glazing and Leadwork—GEO. FARMILOE & SONS.

Door Springs—ROBERT ADAMS.

Fanlight Openers—JAMES HILL & Co.

Ventilators—KITE & Co.

Locks, Bronze Door Furniture, Window Fittings, and General Ironmongery—CHARLES SMITH, SONS & Co., LTD.

Bronze Lanterns—THE BROMSGROVE GUILD.

Fire Hydrant Service—JAS. SIMPSON & Co., LTD.

Pressure Injector for Hydrant Service—THE HYDRAULIC ENGINEERING CO., LTD.





*Photo : A. P. Monger.*

THE GRAND STAIRCASE FROM THE GROUND LEVEL.



*Photo: A. P. Menger.*





*Photo : S. B. Bolas & Co.*





Photo: S. B. Bolas & Co.

TOP OF GRAND STAIRCASE HALL.

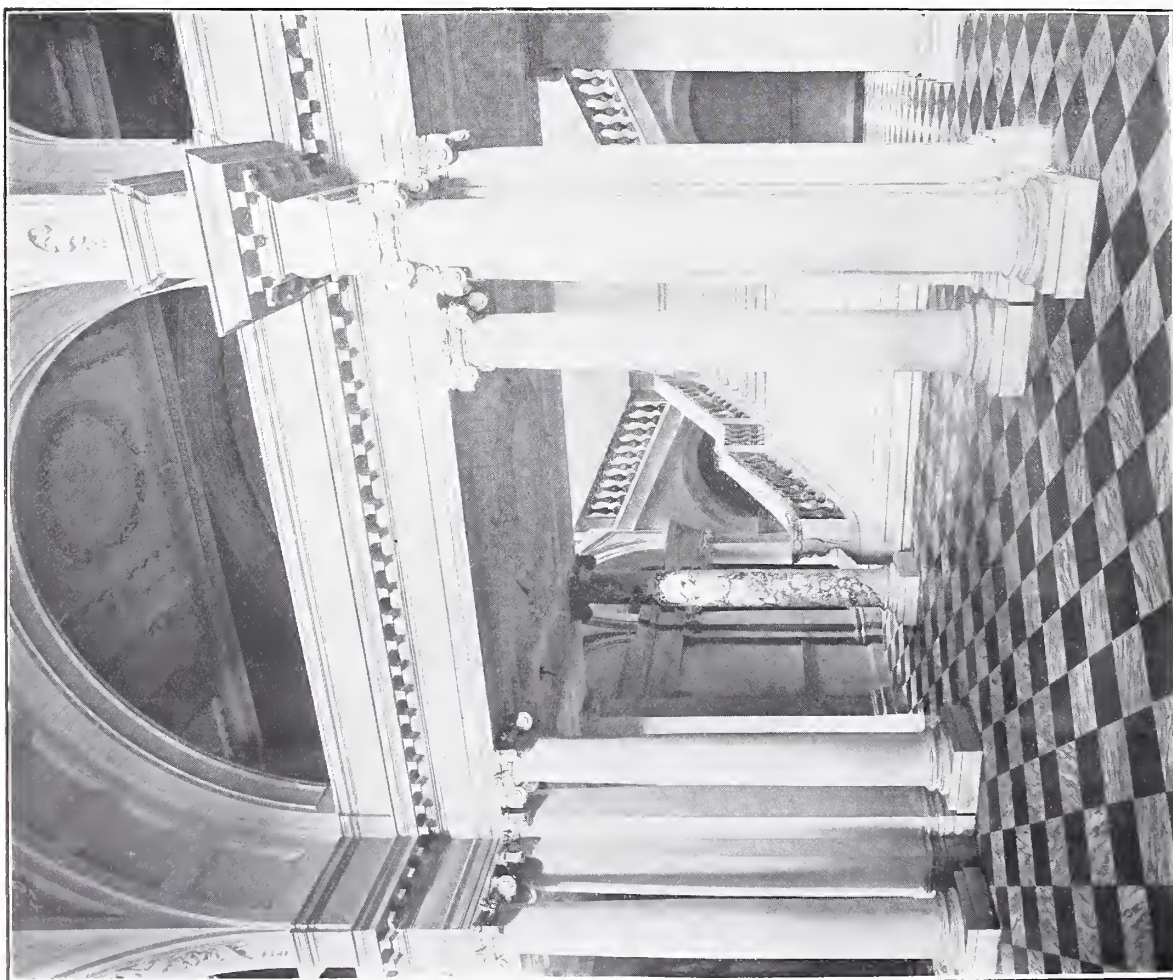


Photo: A. P. Menger.

THE GRAND STAIRCASE FROM THE WHITEHALL ENTRANCE.





ROOM OF THE SECRETARY OF STATE. NO. 204 ON PLAN.  
ROOM OF THE PERMANENT SECRETARY. NO. 262 ON PLAN.

*Photos: A. P. Monger.*





ENTRANCE HALL FROM QUADRANGLE.

Photos: S. B. Bolas &amp; Co.

ROOM OF THE ADJUTANT-GENERAL. NO. 215 ON PLAN.





Photos: S. B. Bolas & Co.

CORNER OF ROOM NO. 217, ARMY COUNCIL SUITE.



CENTRE ROOM, ARMY COUNCIL SUITE. NO. 218 ON PLAN.



*Photo: A. P. Monger.*



# J. T. Micklethwaite, F.S.A., Architect.

IN the late J. T. Micklethwaite, Surveyor to Westminster Abbey and St. George's Chapel, Windsor, architecture as well as archæology has suffered such a loss as no one can make good. His strong personality cannot be found elsewhere. Biographical notices of him have appeared in several papers, but I gladly accept the editor's invitation to say a few words—of a more intimate kind—of my old friend of forty years standing. Strong intellect was perhaps Micklethwaite's leading characteristic, and I think that what he disliked more than anything else was humbug, from which he himself was entirely free. Some may have thought that he carried his Yorkshire bluntness even a little too far on occasions; but as to his kindness of heart no one who knew anything of him ever had a doubt. He had indeed a lovable nature. He could hit hard and did when moved in some church or archæological dispute, but he never dipped his arrows in poison. He was a storehouse of knowledge, had the strongest common sense, and the keenest sense of humour; and to know him at all intimately was in itself an education.

The reason why most architects have adopted or essayed our profession has, I believe, been because they could draw. That was not Micklethwaite's reason for his choice, for he was no draughtsman, and he held that, though useful, draughtsmanship was hardly more necessary to an architect than writing a good hand to an author, and certainly his own example went far to prove this theory. Probably his love for the Church of England and his perfectly convinced high-churchism had a good deal to do with his choice. For he was essentially a church architect—as much so perhaps as Augustus Welby Pugin, to whom some resemblance may have been seen.

Though a few years my senior, Micklethwaite and I were fellow pupils for two or three years in Sir Gilbert Scott's office in Spring Gardens, and even in the days of his articles he was quite familiar with the pages of Durandus and Ducange; and I remember that while still a pupil, in an emergency that occurred he was able easily to supply his chief's place and at an hour's notice to lecture on the building in question, before an archæological society. As an ecclesiologist Micklethwaite was easily first. At the meetings of the Society of Antiquaries, which while his health lasted he rarely missed, and of which society he was for some time a vice-president, he was always referred to

on any ecclesiological question as a matter of course. He was a pioneer in the study of the monastic orders and the planning of conventual buildings, and he not only did much himself to advance our knowledge in this direction, but he inspired several able and younger men to take up the same subject. As an instance of recognition of him as an authority in this way, I may mention that the prior of a French Carthusian community who have settled in Sussex applied to Micklethwaite for assistance in a history of his order on which he was engaged. He was often applied to as an authority on modern church arrangement,<sup>1</sup> and was most kind in freely giving his opinion and advice. Those, however, who were too fond of the word "correct" did not meet with much sympathy. An unlucky wight once asked him in my hearing which was the correct place for the font, and got this reply: "I really don't know. Possibly the 'correct' place is the centre of the chancel, but if I were you I'd put it near the door most used by the congregation." To him what was fit and convenient and would add to the dignity and solemnity of a church was sufficiently correct; and his gift for obtaining this quality—what has been called a "churchy" effect, was quite remarkable. It was noticeable also that with his complete knowledge of mediæval churches, their fittings and furniture, there was no aping of mediævalism in his own work; and although William Morris used to say of him that without effort he naturally produced fourteenth-century architecture, his principle really was to move with the times and make use of modern inventions so far as they could be rightly brought into service.

A list of his principal works was given in the *The Builder* of Nov. 3. The Gainsborough Church was one of the most important. The work here was shared by his partner Mr. Somers Clarke. St. Hilda's, Leeds, an earlier work, was, I believe, entirely Micklethwaite's. A church near Burton,<sup>2</sup> where expense was not stinted, he thought one of his best, but I have not seen this. His appointment at Westminster was quite the best that could have been made; for he knew the abbey and loved it more than any one living. There he most appropriately was laid to rest, and those, and they were many, who attended that beautiful service will not forget it.

W. NIVEN.

<sup>1</sup> Perhaps one reason why he brought out his *Modern Parish Churches*, thus saving applicants and himself some trouble.

<sup>2</sup> This church will be illustrated in *THE ARCHITECTURAL REVIEW* during the early part of 1907.



# Notes.

## *The New Westminster.*

It often happens that modern improvements compel a reconsideration of all the surroundings of a great building. There are two types of city designing: one which is best described as the mediæval, with narrow streets converging upon a central market-place; the principal building, usually the cathedral, closely hemmed in on three sides with other but lower structures, and the fourth faced by a close which is itself entered by a vaulted gateway. Here all is picturesque, closely grouped, and presenting many and sudden changes of view; it is familiar to us in our cathedral towns and universities, and its leading forms and details are Gothic. The other is modern. Here all is open, wide, and usually somewhat monotonous; buildings are much isolated, difficult to group and often not grouped at all; its monuments as often as not are placed as Lord Leighton said of Cleopatra's Needle, "emphasising nothing, by nothing emphasised"; thoroughfares are wide and handsome rather than picturesque; great bulk is the characteristic of all important structures, and each rebuilding develops these characteristics still farther.

Few places have been more changed in these respects than Westminster. Formerly the Palace and the Abbey stood on an island approached by drawbridges, its "Sanctuary" was the last resort of bad characters, and Westminster was a district of slums. Now, all is changed or changing. The great palace and the great church stand in the midst of open spaces and gardens; the bridge, the river, the immensely widened Parliament Street all combine to produce a sense of airiness and brightness, though it should in fairness be said that all this opening out somewhat dwarfs even the vast buildings about them. It has been said of the great rebuilding of Vienna that round about its grand but isolated new buildings there is "a sense of dusty vacuity," and the remark might be extended to more than one modern improvement scheme, even when well thought out in other respects. Westminster has escaped this vacuity, and its gardens and greenery are preferable to the deserts of asphalt paving often seen in foreign capitals.

But the transformation of Westminster is not yet complete. To the spectator emerging from Parliament Street the view is blocked between Henry the Seventh's Chapel and St. Stephen's Porch by the buildings known as Abingdon Street. These, it was long believed, were almost certain to be removed, the roadway widened, and another strip of greenery added. But such a change has now been rendered almost valueless. A huge and most aggressive pile of offices built for the Ecclesiastical Commissioners has arisen behind, in appearance an embodiment in red and white of the very latest ideas of modernity. It is a vast structure, and impresses the visitor by a sense of impending height even with so vast a neighbour as the Victoria

Tower close by. It is certainly an extreme instance of contrast, nearly faced as it is by the conventional Tudor outlines and forms of Barry and Pugin's great palace; a very freely treated "Renaissance" structure piled up story upon story on one side while Late English windows and endless shields and supporters, the portcullis of Westminster and the Tudor rose, are repeated a thousand times on the other. The contrast does not stop there. At the far end of the palace, beyond the Victoria Tower, a little garden has been laid out, bordered by the road, the river, and a confused mass of old buildings which it is said are to be removed. Standing here and looking back "Parliament" is seen to be housed in a comparatively low building; its vast towers increasing the sense of lowness—lowness quite in accordance with "domestic Tudor" traditions, but violently jarring with the lofty bulk of the towering "Renaissance" structure over the way. But contrast has evidently been aimed at here, and the same may be said of every new building raised within sight of the palace of late years. Not one is Gothic, not one but what seems intended to contradict rather than supplement the great central pile. Whether this be right or wrong we will not decide, but it is obviously deliberate.

And what will the new home of the London County Council be? How will it affect the appearance of the river? Is Gothic really "dead"? Or will another forest of towers and pinnacles be reflected in the Thames? So interesting a competition as that now announced for the new design must surely produce something to beautify the great waterway; but will contrast—violent contrast—still be the note struck?

Returning to Abingdon Street we may assume that there will be no very far-reaching change in the sense of a complete clearance opposite the Peers' entrance; the view will always be blocked by the Ecclesiastical Commissioners' building, and this would still be the case even were the few remaining houses of Abingdon Street removed. It is remarkable that the most important building of the purely modern world has set no fashion in art. It should be said that a pretty "up river" view will be opened when the old but unimportant buildings beyond the Victoria Tower Garden are removed, but it will not be visible from Parliament Street.

The story of the new Westminster, it is much to be feared, will be the story of all our public improvements in London: a series of changes without any well-defined purpose ending in an architectural patchwork. A great opportunity was lost by leaving the ground where Bridge Street and Palace Chambers now stand to the tender mercies of the speculative builder; here undoubtedly was an appropriate site for new departmental buildings; in their stead we see utter commonplace.

J. C. PAGET.











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